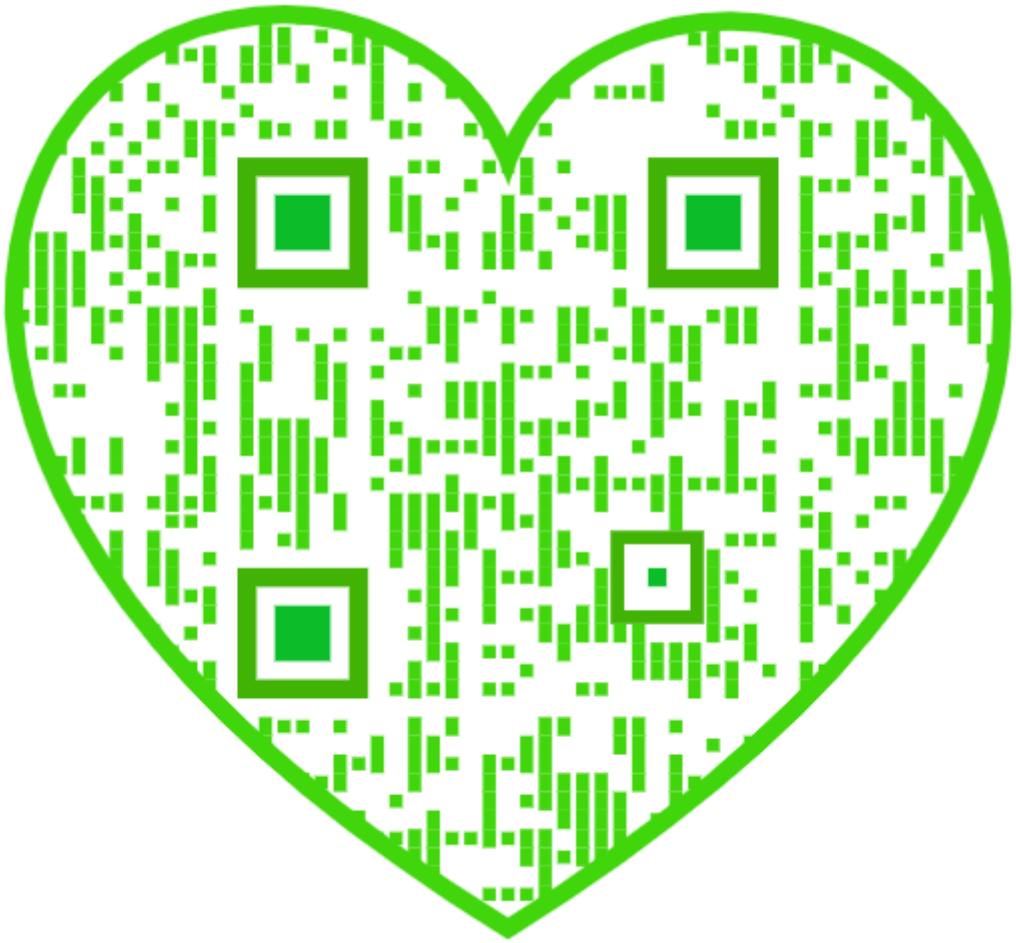

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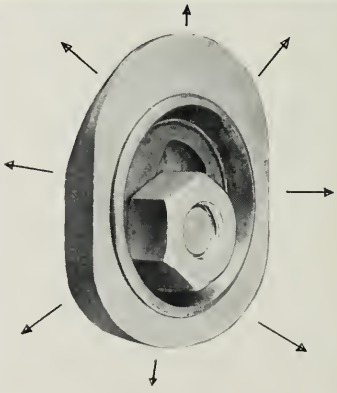

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# ARCHITECT AND ENGINEER

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**COVER PICTURE**

**FREMONT HOTEL**
Las Vegas, Nevada

Architects:
Wayne McAllister
William C. Wagner

Striking new Fremont Hotel rises thirteen stories above desert floor claiming title of Nevada's tallest building. Angular sun-shades, one for each window, protect guests from severe desert sun; the architectural porcelain enamel shades also provide a unique and attractive effect.

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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

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# . EDITORIAL NOTES .

## FEDERAL SCHOOL CONSTRUCTION

A spokesman for the Health, Education and Welfare Department stated recently that momentum is rapidly building up and that passage of an administration-backed bill appeared imminent in the first session of the 85th Congress.

His comments followed appearance before a conference of representatives of a number of national organizations pushing for federal intervention in education.

Hearings before the House of Representatives last year disclosed a number of facts which have never reached the American public, including significant facts about classroom totals and wants.

One state, for instance, reported that only 122 of its existing 4,616 school plants were satisfactory. This state has the lowest school debt limit, low tax assessments, virtually no state debt, and no sales tax.

In another state the people have twice rejected (1955 and 1956) proposals by the governor and State legislature to boost taxes, issue state bonds and build schools.

Should taxpayers in other states be assessed higher taxes in order that these states may "enjoy federal school construction" programs?

One bill which received serious consideration during the 84th Congress, would have provided the state of Illinois $8.5 million in school construction funds at a cost to the Illinois taxpayers of $18-million.

Perhaps the observation of Illinois' Governor Stratton shoull be given more than mere passing thought: "I think the question of federal aid has been stressed out of all proportion to the possibilities for accomplishment within the state."

The only way to defeat federal intervention in education, or any other phase of governmental encroachment into private enterprise, is through local and state effort. Business leadership has helped stimulate support for good schools—many classrooms were built this past year and more will be constructed in the coming year, without the added federal taxes necessary to support a federal school construction program.

* * *

*". . . Industry is today in the middle of a shortage of well educated men of special competence in almost all fields of endeavor."—T. Keith Glennan, Pres. Case Institute of Technology.*

* * *

## ROADS PROGRAM ENDANGERED

Demands by some states for additional highway miles to be added to the federal interstate system poses a potential threat to orderly progress of the multi-billion dollar road building program authorized by the 84th Congress.

States were asked by the Bureau of Public Roads to list the number of extra superhighways needed, an inquiry prompted by a provision of the Highway Act of 1956 which added 1,000 miles to the 40,000-mile system without any provision for financing, and some 13,000 additional miles have been demanded.

With the 85th Congress now in session, backers of the additional 13,000 miles will loudly assert their demands.

If Congress accedes and adds substantial mileage, the effect will be a dangerous dilution of available funds, and this could seriously upset the 16-year program schedule, perhaps revamping the tax plan devised after long consideration by Congress.

Added miles could conceivably bring about lower standards of construction because of lack of funds, a situation that would certainly further complicate the $50-billion federal-aid program already beset by possibilities of shortages of manpower and materials.

To propose additional taxes to finance new mileage would open a controversial issue that might not be resolved, as tax collection is rapidly reaching the public payable limit.

It will be well for all states, and everybody concerned, to get underway with the roadbuilding program presently approved before adding more construction.

* * *

*Picture-phone that permits persons to see each other while talking has operated experimentally across the continent between Los Angeles and New York*

* * *

## HOME BUILDING PROSPECTS

Despite some of the most trying conditions in its history, the home building industry provided the American people with approximately 1,100,000 new homes during 1956—the eighth consecutive year in which it has topped the million-unit mark in production.

The question as we enter 1957 is "Where does the Home Building Industry Go From Here?"

Forecasting is always a risky business, especially in an industry such as home building where public psychology, governmental money policies and consumer tastes play so important a role. But it appears certain at this time that there is a strong market in this country for another million or more new homes during 1957 with the demand on the Pacific Coast remaining at last year's level.

Financial leaders in recent weeks have indicated there should be enough mortgage credit available for a million-plus families to buy the homes if they are constructed.

Date Line: Las Vegas

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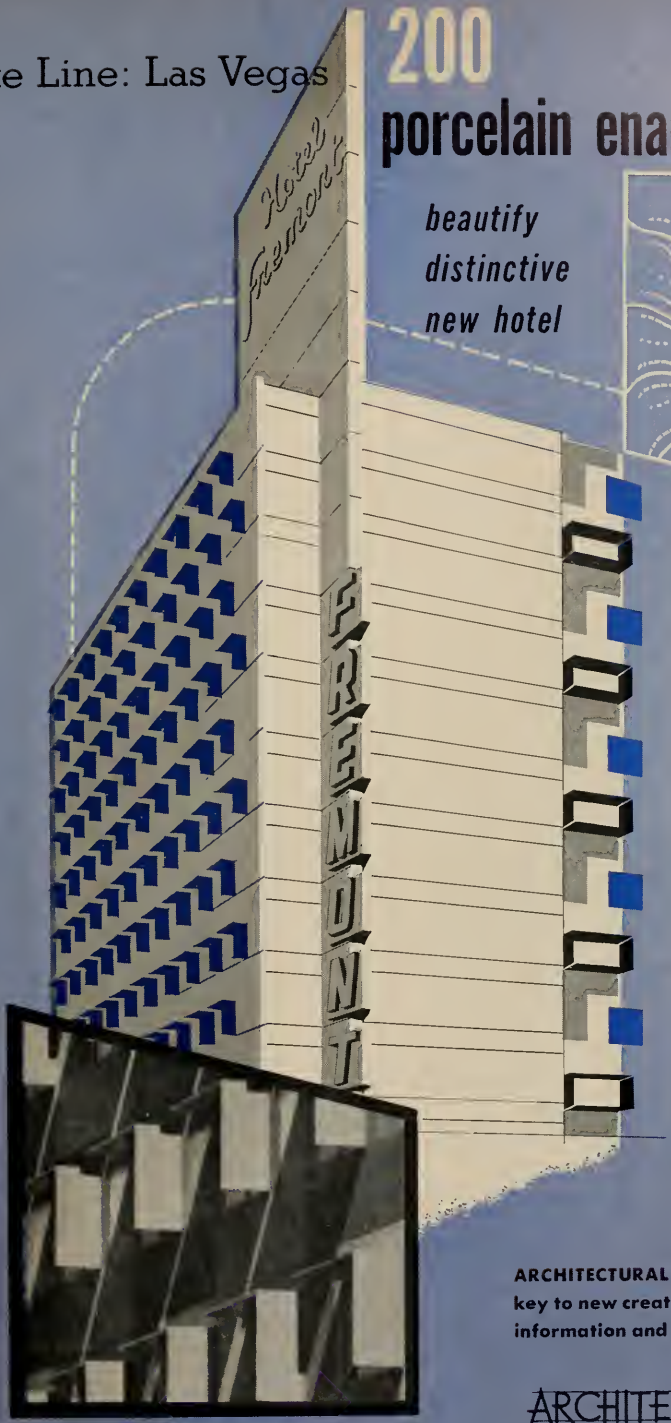


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# NEWS and COMMENT ON ART

### CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Beatrice Judd Ryan, is exhibiting a special group of Mexican Paintings during January.

The work exhibited is by Tomas Coffeen, John Duarte, Jose Servin, and Valetta Swann.

### CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., has arranged a number of special exhibitions for January, including the following:

EXHIBITS: The Gladys Lloyd Robinson and Edward G. Robinson Collection will continue through January 13. This world famous collection, which includes celebrated works by the masters of Impressionism and Post-impressionism, is being shown under the auspices of Patrons of Art and Music, and is presented for the first time in its entirety.

Watercolors by Robert L. Holdeman, and "The Family of Man" the famous exhibition selected by Edward Steichen and assembled by the Museum of Modern Art, New York, comprising 503 photographs from 68 countries, which take as their theme man's relationship to himself and his world. The exhibition is being presented under auspices of the Stanford Convalescent Home Auxiliaries.

ACHENBACH FOUNDATION FOR GRAPHIC ARTS: A Loan Exhibition at the San Francisco Public Library. Nativity Prints from Martin Schongauer to Sister Mary Cortia, I.H.M.; and Views of the Fifty-Three Stations of Tokaido, a group of wood-

## SAN FRANCISCO MUSEUM OF ART

WAR MEMORIAL BUILDING CIVIC CENTER

**GIRL WITH GREEN EYES**

oil, 26 x 20",
by
Henri Matisse.

Collection of the San Francisco Museum of Art, Harriet Lane Levy Bequest.

block prints by Hiroshige.

EVENTS: Organ Recital every Saturday and Sunday afternoon at 3 o'clock. Educational activities including new classes for adults interested in contemporary approaches to painting will be announced in February.

## OAKLAND ART MUSEUM

The Oakland Art Museum, S. W. corner Municipal Auditorium at 10th and Fallon streets, is presenting a number of special Exhibitions during January to inaugurate an interesting and educational schedule of exhibitions for the new year.

The Museum is operated as a Division of the Oakland Public Library, and is open daily 10-5, noon until 6 p.m. each Sunday.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is offering the following special exhibitions and events during January:

EXHIBITS: Paintings by Sonia Gechtoff; Women of Mexico, Photographs by Bernice Kolko; Three Painters, Rico Lebrun, Channing Peake and Howard Warshaw; San Francisco Art Association Exhibition of Artist Members including Painting, Sculpture and Graphics.

SPECIAL EVENTS: Classes in Art Enjoyment—Exercises in Oil Painting, Part II for Adults; Painting Workshop for Amateurs; Seminars in the History of Art; and Picture Making, Art and Nature and the Art Club for Children. (All classes are free).

The Museum is open daily.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, announces the new year will be opened with a number of special exhibitions and events being scheduled for January.

Among the Exhibitions will be: Design in Scandinavia, an exhibit which brings to San Francisco over 700 examples of furniture, lighting fixtures, ceramics, glass, metal, plastic, wood, and textiles by craftsmen and industries concerned with the production of distinguished objects for daily living according to the standards of fine design for which Denmark, Finland, Norway and Sweden are noted. The exhibition is sponsored by the Kings of Denmark, Norway, and Sweden and the President of Finland, and by a committee of their consular representatives in San Francisco, together with distinguished citizens.

Also on exhibition will be "Collections and Collectors—1950-1956," and "Israeli Prints."

Special Events will include a new lecture series on "The Anatomy of Art" beginning January 15th and each Tuesday thereafter until and including February 5. Lecture Tours of the Museum are conducted each Sunday at 3 p.m.; Wednesday evening art discussions at 8 o'clock; Adventures in Drawing anl Painting; The Studio-Art for the Layman; and Children's Saturday morning art classes.

The Museum is open daily.

## DR. GRACE L. McCANN MORLEY SPEAKS ON ART IN FRANCE

Dr. Grace L. McCann Morley, director of the San Francisco Museum of Art, recently spoke on the subject, Adventures in Vision—Contemporary Art in France and the United States, and illustrated her discussion with numerous slides.

The talk was in connection with the current exhibition, ART FROM FRANCE, which was organized by Dr. Morley in conjunction with Jean Cassou, Chief Curator of the National Museum of Modern Art, Paris.

As a result of her work for UNESCO, Dr. Morley has been able to keep in close touch with the developments in France and is in a unique position to compare them with those taking place in the United States since the war.

## KATE NEAL KINLEY MEMORIAL FELLOWSHIP

By authority of the Board of Trustees of the University of Illinois the Committee in charge announces the twenty-sixth annual consideration of candidates for the Kate Neal Kinley Memorial Fellowship.

This Fellowship was established in 1931 by the late President-Emeritus David Kinley in memory of his wife and in recognition of her influence in promoting the Fine Arts and similar interests upon the Campus. The Fellowship yields the sum of one-thousand three hundred dollars which is to be used by the recipient toward defraying the expenses of advanced study of the Fine Arts in America or abroad.

Already more than 1,500 architects, designers, students and others have indicated their desire to enter the Competition. More than 1,000 of the entrants are from foreign countries.

EDWIN FRANCIS HOME, Portland, Oregon . . . Richard Sundeleaf, Architect

# CASUAL ROOMS for CASUAL LIVING

By ARTHUR W. PRIAULX

Prospecive home buyers are often heard to remark: "We want a separate room for the family where the children can play without destroying furniture in the living room, and where the family can sort of relax in slippers and slacks."

With more leisure time on their hands, and the trend toward more activities in which the entire family can participate, the family room has become the hit of this generation of home builders and architects. Nearly every self-respecting home in the contemporary trend has its own special version of the family room.

Some mothers want it close to the kitchen where they can supervise the youngsters at play. Then, too, being close to the kitchen it is much easier for snack time and saves the trail of crumbs, spilt milk and cokes when children have to track through several rooms with their spare meals.

For the family which likes a change of pace in its leisure-time enjoyment, the family room with television set relieves the living room for quieter reading and more formal entertainment.

All of these factors are considered today by the architect when he undertakes the task of designing a contemporary home for contemporary living. Casualness is the keynote. Easy comfort is demanded. A friendly, cheerful and inviting room is generally the answer. Fortunately, with the materials available today, it requires no great effort to create such a room. A goodly number of them feature wood-paneled walls. for wood lends itself particularly to this type of informal atmosphere. Especially, softwoods like Douglas fir and west coast hemlock which can be furnished naturally in a variety of varnishes, plastic finishes and stains to retain the warmth of wood grain and texture as a decorative device.

Families are getting larger and the more children in a home, the more need for elbow room for them to move about without overflowing all over the home. The family room serves to concentrate their activities when indoors, and cuts down on house cleaning time. Then, too, when the dining room was merged with the kitchen the need for a family room became even more acute. Even in the homes with sparate dining rooms, the family or bull room more than pays its way. Family rooms can be built and designed in a variety of shapes and sizes and locations. They can be elaborate, having full music walls with radio, television, hi-fi and movie screens, with snack bars equipped with sinks and refrigerators, or they can be a simply furnished room with sturdy furniture and a few bookcases, with the television set added as an afterthought. But, they all have one thing in common, they are the family headquarters where every one from grandfather to the year-old toddler can collect and indulge his choice of relaxing.

Some family rooms follow the early American tradition and join directly with the kitchen in a keeping room theme. This is an ideal arrangement when the children are young and need close supervision, and it serves equally as well in any size family for the other members may gather here, be close to the center of cooking operations, yet out from under foot.

Basement bull rooms are very popular, especially where the children of the home do a lot of 'teen age entertaining. In the Sidney Milligan home at Eugene (see page 7) Architect John Loren Reynolds designed a bull room in the basement which opens directly off the driveway. This room doubles as a guest room, and the bunk-type beds along the window wall serve most generally as serviceable couches or lounges. A television set and a small library tucked away on one of the walls offers ample simple entertainment, for children generally make their own fun if given space to move around.

Another basement family room which opens onto a

**SIDNEY MILLIGAN RESIDENCE**

**Eugene, Oregon**

**John L. Reynolds, Architect**

**Some of the entertaining is done in this lower-level game room which doubles as a spare bedroom when guests arrive.**

**At Left:**

**ANNA DITTERBRANDT HOME,**

**Portland, Oregon**

**John Smeed, Architect.**

**A basement bull room has many attractive features to make it welcome.**

**Below:**

**ROBERT DWYER HOME,**

**Portland, Oregon**

**Richard Sundeleaf, Architect.**

**Corner of family room combines formal beauty and casual decorative scheme.**

lower level patio is found in the Anna Dittebrandt home in Portland, designed by Architect John Smeed. (See Page 8 top.) Paneled in soft-toned western red cedar, this room is slightly more elaborate to accommodate the spare time requirements of two older children. A snack bar with sink and refrigerator saves much up and down traffic from the main kitchen when parties are in progress. A pass-through door enables the "cook" to serve her guests on the patio and saves many steps. This room has been simply furnished in leather chairs and has a rubber tile flooring which is easy to clean. A picture window looks out onto a lower garden as well as the patio.

The family room in the Warren Weiseth home in a rural district near Eugene and designed by Architects Wilmsen and Endicott is the music headquarters of

this family. (See Page 9). A two-level home, the family room adjoins the stairwell coming up from the entrance level of half story below. It is separated from the stairwell by a half wall the upper half of which is louvered. the entire paneling and louvers being designed in western red cedar. This allows light into the stairwell and gives the smaller family room an air of spaciousness which is further enhanced by still another similar louvered upper wall on the main hall side. Here the family can gather for music interludes and relaxed reading, yet enjoy the activities of other members of the family scattered about this home. This room would be rather formal without the space giving effect of the louvers, which seem to impart just the right touch of informality so necessary in a family room.

Architect John Loren Reynolds actually created two family rooms in the Sidney Milligan home, the second one on the main floor being more of a full family room (see page 10 bottom). Library, magazine racks and music wall are consolidated along one wall of this room which serves also as the living room. Here is a case of making a room do double duty, functioning both for formal and informal enjoyment and entertaining. By arranging the spare time activity affairs in one area, the formal aspects of the remainder of the living room are in no way disrupted.

Family rooms need not always be extra large as in the instance of the Edwin Francis home in Portland (page 6), another product from the drawing board of Architect Richard Sundeleaf. Opening off a main hall, this family room is more of a retreat, where one or more members of the family can relax with their favorite spare time hobby, game and reading. It includes a well-stocked library, small fireplace and sturdy furniture where junior members of the family can play with games without threat to good furniture or breakable devices. One of the charms of this room is the finish of the walls and bookcases which have been made of Douglas fir. The soft tones of this wood create an unmistakable atmosphere of informality, and a cheerful and friendly overtone to this room. Use of Douglas fir has been tastefully conceived in combination with the brick of the small fireplace and the large window on one wall. An exposed beam ceiling adds

**WARREN WEISETH RESIDENCE**

**Eugene, Oregon**

**John Smeed, Architect.**

**Informal family room features this home with an all-cedar finish.**

character and distinction to this unusual room.

In the Robert Dwyer Portland home (see page 8 bottom), Architect Sundeleaf has created a family room which is interestingly enough rather formal in its overall aspects, with the painted hemlock paneling accentuating this atmosphere. But the room still manages to come off as most informal, probably because of the friendliness created when the fire is burning in the fireplace and partly because of the taste used in decorating the room. An informal air is established by the cozy snack bar in one corner which is most inviting, and fully equipped for this active family, whether the children or mother and dad are entertaining.

An interesting feature of the Gordon Carey home in McMinnville, Oregon, (see page 11 top) is a small refreshment bar which utilizes what would normally be space only for a very small closet. Designed by Architect Richard Sundeleaf, this tiny bar serves the adjoining family room and is also available for entertaining in the more formal rooms of the home. A vertically split folding door closes the bar away out of sight when not in use. It is large enough for a tiny sink and has storage facilities for glassware and other needed supplies. Made of blonde-finished west coast hemlock to match the rest of the home, it has charm and appeal, partly because it is completely hidden away behind innocent looking hemlock paneled doors when not in operation.

Van Evera Bailey and Warren Weber, among Portland architects designing Oregon coastal homes, have taken advantage of the outdoor living urge of many of their clients by building family rooms with easy access to the patio areas. Some of these family rooms have been designed to capture the breathtaking view of the ocean which can be enjoyed in rough weather as well as good. And in good weather, the outdoor fans are only a step or two from the sunshine and ocean air.

Back in the Willamette valley where scenery of still another sort is much sought after in view homes, architects such as Clare Hamlin, Tom Balshizer, John Stafford and others have made these family rooms into places of exquisite beauty and charm with ever-changing panoramas of distant mountains and valleys a lodestone for the family. These men, too, combine outdoor-indoor living facilities with great skill to create living areas where the family will want to spend much of its time.

In Portland, where hillside sites offer a wider range of possibilities, many an architect, like Robert Fritsch, Walter Gordon, DeWitt Robinson and John Storrs have combined the general utility of a family room with a distinction not always possible in all sites, with the added beauty of incomparable views enhanced by wide glass areas. These picture-window equipped family rooms may look out upon the Willamette and Columbia rivers, over sparkling Lake Oswego, or they

**FAMILY LIVING ROOM**

**Architect John Loren Reynolds of Eugene designed this compact entertainment wall which serves the spare time and casual needs of the family.**

may offer a view of a secluded valley in the west hills area. In every instance, the general usefulness and attractiveness of the family room is greatly multiplied by careful planning to get maximum possible added beauty of site and view. Where sloping hills make it impractical to join the view side of these rooms with an outdoor patio, the architect uses lanai, terrace or porch effectively to get all-weather use of the room and to encourage the outdoor fan.

These architects find that they can effectively blend the outdoor and indoor living areas by using wood paneling inside which ties in with similar wood used on the home's exterior. Oftentimes the exterior and interior woodwork is finished in similar style, stained, painted or varnished to more nearly complete the theme of oneness and avoid the sharp break between the two living areas which different materials, finished in sharp contrast would create.

There are a variety of ways to separate family rooms from adjoining rooms, especially where a full wall is not desirable. One of the most common means is with fireplace room dividers, which offer a wide variety of possibilities for the architect.

For instance, where family rooms adjoin kitchens, a fireplace in the family room used as a room divider is backed up on the opposite side with a broiler, wall ovens or barbecue pit. Where family and living rooms adjoin, the fireplace divider wall can serve double duty with two-way hearths proving especially attractive and

**ABOVE: The Gordon Carey home in McMinnville, Oregon, designed by Architect Richard Sundeleaf, has a clever bar tucked away in the family room area.**

**BELOW: All-purpose family room in the Dean Pape home, designed by Architects Wilmsen and Endicott, is a day-night room. Children's play gear tucks out of sight when adults take over.**

## CASUAL ROOMS . . .

practical. These fireplaces can be formal, finished in brick, or can be most informal in stone or rough brick. Formal or informal, fireplaces always add a distinctive warmth to a room. Many fireplaces are installed, as some architects point out, to add an element of fun to a room. They can be unorthodox in appearance, thus making conversation pieces, and on the gay side, and they can be constructed of inexpensive materials.

Some west coast architects have been most successful in developing a cleverly distinctive form for their living and family rooms using height to create a more spacious appearance, something much desired in a smaller home which could become tight and cramped. This effort to make living and family rooms appear taller is especially evident in the story-and-a-half houses, where smaller lots force the designer to go up for his space and effects. An entire new field of opportunity presents itself to the architect, and the appearance of these split level houses is generally much more interesting.

Post and beam construction, inexpensive because materials such as Douglas fir and west coast hemlock are readily available out here, is actually less costly to build. These woods can be purchased in grades to get maximum appearance values, and this is important where the exposed posts and beams and ceiling will be finished in some natural tone to capture the interesting decorative effect of texture and grain. Architects are discovering, as they become more familiar with split-level construction, that it is actually cheaper to put a simple roof over a split than to introduce a lot of expensive breaks into the roof just to save cubage. The result is a taller ceilinged living room or family room which gives a much needed lift to the smaller homes.

Even single story living rooms can be made to look more expansive and taller with the increasing popularity of cathedral or roof ceilings, again using the exposed beam and ceiling technique.

A goodly number of architects, striving for effect in their design, are using the combination of low-ceiling bedrooms and high-ceiling living and family rooms to create a dramatic effect in their homes. The taller ceilings of the family room thus are given added impact when contrasted with the single story rooms of the balance of the home. Then, too, the cathedral and roof ceilings have opened up new possibilities for use of skylights and clerestory for dramatic lighting effects.

It is interesting to note that the story-and-a-half family and living rooms have been achieved in today's larger rooms without in any way dwarfing the people in the home. The taller height is scaled to conform to the wider and larger rooms.

Shed plank roof ceilings have been used with considerable success by some architects looking for variety and individuality. Others have used contrasting horizontal and vertical paneling of fir or hemlock with good effect to reduce the height of these taller rooms by illusion. Another scheme in design which creates some interesting variety of spaces is to stack bedrooms and baths on top of the kitchen and dining areas, having both open onto the tall family-living room. The upper rooms are intimate and low-ceilinged opening dramatically onto the high ceilinged room. Balconies above have visual privacy from below yet have an enjoyable airy view of the upper regions of the family-living room.

A family room that really functions should be so designed with relation to the rest of the home that the family will feel secure in leaving toys, hobby gear, family projects and other playtime stuff around without having to stow it away every time the doorbell rings. It should be conceived as the family's own room, and that is just how it is being approached today by hundreds of western architects who are creating some wonder rooms in this casual living age.

### WORLD CONFERENCE ON PRESTRESSED CONCRETE

The Department of Conferences and Special Activities University Extension, University of California at Berkeley, has announced a World Conference on Prestressed Concrete will be presented by the University of California, in cooperation with the Prestressed Concrete Institute and other organizations, July 29 - August 2 in the Fairmont Hotel, San Francisco.

Purpose of the conference is to bring together scientists, engineers, and manufacturers in the field of prestressed concrete in order that their knowledge and experience may be pooled for the advancement of the science and industry of prestressed concrete. The Prestressed Concrete Institute, a nation-wide, non-profit organization, will hold its third annual meeting on July 29, prior to the opening session of the conference.

### STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA

Special reports of committee activities highlighted the January meeting in the Engineers Club of San Francisco, with John M. Sardis, chairman reporting for the Research Committee. Development of Code of Standard practice for Design and Construction of Pre-Cast Prestressed was reported by Frank Baron, and Tom Fitzgerald reported on Deflections in Structures.

Activities of the Lateral Force Committee were reported by Pete Kellam, Chairman, and the Building Code Committee was reported by Frank McClure; with Oren L. Christensen reporting on the new A.C.I. Building Code regulations.

"Building Codes—What should they contain?" was discussed by Marvin A. Larson.

The March meeting will be a joint meeting with the A.I.A.

# A GREATER FT. WORTH TOMORROW

VICTOR GRUEN and ASSOCIATES, Architects

**Loop road accessible from freeway encircles the "New City Core" with turn-offs to city.**

An imagination-stirring blueprint for "A Greater Fort Worth Tomorrow," one that would include, along with a sound county highway system, a central business district free from vehicular traffic, has been presented by Victor Gruen, head of the architectural-engineering and planning firm, Victor Gruen and Associates of Los Angeles, to a meeting of the Fort Worth Club, attended by some 200 Fort Worth and Tarrant County residents representing a substantial cross-section of the metropolitan area.

**Downtown Ft. Worth as it is today.**

At the meeting, the formation of the Greater Fort Worth Planning Committee, headed by J. Lee Johnson, Jr., president of the First National Bank, as Chairman, and Clay J. Berry, manager of the Fair Building Corporation, as vice chairman, was announced. Several sub-committees within the overall committee were formed for the purpose of studying the proposed plan and the ways and means by which it might be implemented.

"The Greater Fort Worth for Tomorrow" plan, a pattern for Fort Worth Metropolitan redevelopment, is the result of intensive research and study into the problems of the city, problems arising from the fact that Fort Worth, like all other cities, is an outgrowth of the horse-and-buggy era but must now live in the age of the automobile.

The Plan for Fort Worth answers these problems:

How to prevent metropolitan Fort Worth from strangling in its own traffic by 1970.

How to assure Fort Worth's continued growth and prosperity.

How to place Fort Worth in a more advantageous

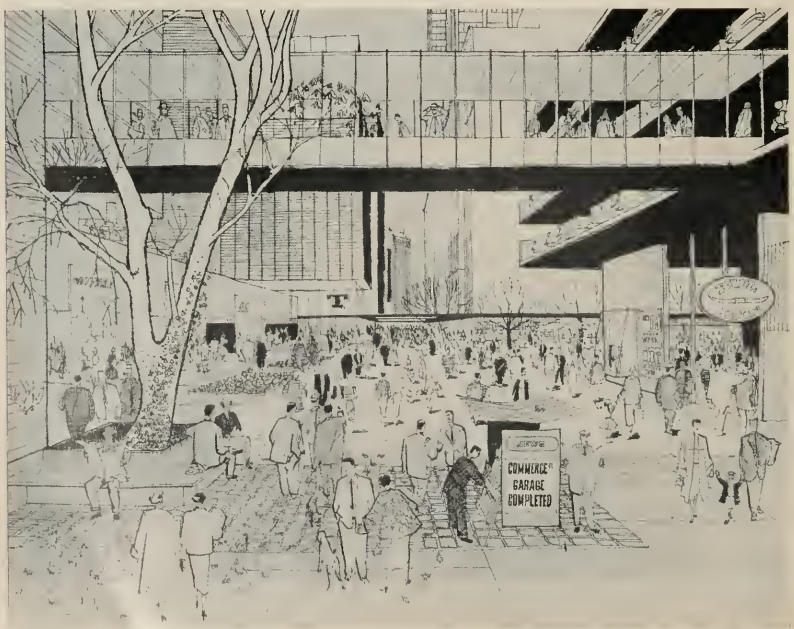
**Fort Worth of Tomorrow after completion of downtown rehabilitation.**

position in the competition among cities of Texas and the Southwest for economic development.

The Plan makes these dynamic recommendations for the Greater Fort Worth of Tomorrow:

1. Creation of a pedestrian central business district free of surface vehicular traffic — it would be unnecessary for automobiles, buses and trucks to enter the heart of the city. Comfortable, noiseless, battery-powered shuttle cars would be available throughout the area for the conveyance of pedestrians.
2. Eventual construction of underground freight and cargo delivery facilities in the central business district.
3. Construction of a loop or belt line highway ringing the central business district, receiving traffic from the city's freeways and other tributary roads and funneling the traffic into strategically-placed parking garages and terminals, where buses, taxis and airport limousines would discharge passengers.
4. Construction of six major parking garages inside the belt line highway to serve the entire downtown area, with a deep penetration into the pedestrian central business district so as to minimize walking distances within the area. No point would be more than a two and one-half minute walk from the nearest parking garage.

Under this Plan the area bounded by Belknap Street on the north, Jones and Pecan Streets on the east, Lancaster Avenue on the south and Henderson Street on the west ultimately would be free of surface vehicular traffic. The area would have the atmosphere and




**Fort Worth's 7th street looking West, with vehicular traffic removed, giving shoppers view of windows on both sides of street. Pedestrian bridge connects parking structure with a hotel.**

**Close-up of downtown area as it is today.**

appeal of such developments as Rockefeller Plaza in New York. In his plan, Gruen envisions certain downtown areas being replete with trees, greenery, benches and statuary.

Gruen, a leader in the development of planned suburban shopping centers and architect of the nation's famous shopping center — Northland, near Detroit — believes that lessons learned in recent years in suburbs can provide answers to problems of cities.

"Tomorrow's central district will have no signs of blight or deterioration," Gruen believes, as "In their place will be lovely malls and concourses, covered sidewalks and comfortable benches, landscaped gardens, sculpture, fountains — a city shopping center that is restful and pleasant. The central district will be an integral addition instead of an ugly disturbance; a cultural, social, educational center. Shopping, going to work, attending cultural and entertaining events in such an environment will be a new and thrilling experience for everyone."

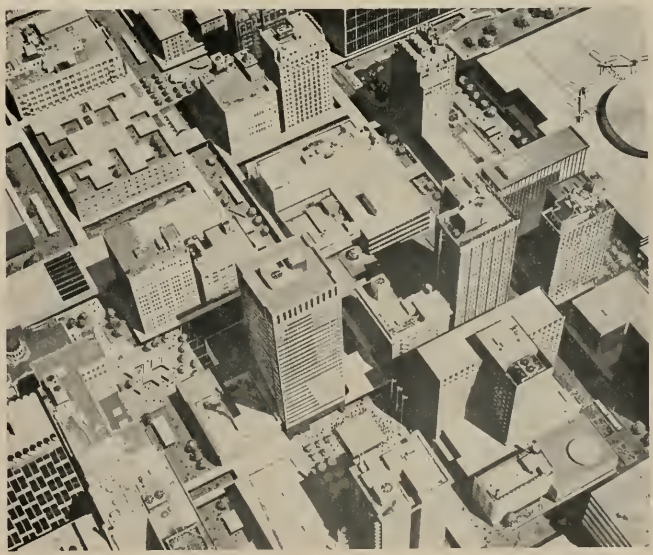
Other cities are considering and even undertaking plans for redevelopment that contain certain of the proposals inherent in the Gruen Plan for Fort Worth. The plan for Fort Worth, which ties in with the development of an adequate county highway system, is the first to incorporate all these bold proposals:

1. A central district free of automobiles and trucks.
2. Strategically-located parking garages and terminals within an inner belt line highway.
3. Underground truck routes and delivery facilities.

The plan is a "natural" and particularly suited for Fort Worth because it takes advantage of the natural boundaries of the city by the Trinity River, the railroads and the freeways. The plan locates the inner belt line highway just within these natural boundaries.

It is estimated that by the year 1970 approximately 152,000 cars will visit the central district of Fort Worth each day. This is approximately twice the

(See Page 23)



**Nine-Block Study**

**Shows all surface traffic has been removed and the pedestrian is king.**

**Pedestrian walks, malls, parks and plazas have taken the place of automobile traffic and parked cars—over five million sq. ft. gained.**

GENERAL ELECTRIC - LAMP DIVISION

# OFFICES and WAREHOUSE

Los Angeles, California

ALBERT C. MARTIN and Associates
Architects
Engineers

NOYES ROACH CO. } Venture
C. L. PECK } Joint
General Contractors

T. Y. LIN & ASSOCIATES
Engineering Consultants

120,000 SQUARE FEET OF AREA

Today's building methods took a long step into the future when the first pre-tensioned, prestressed concrete roof panels were hoisted into permanent position on the new million dollar General Electric warehouse and offices being constructed at Malt and Telegraph Roads, Los Angeles, California. It is believed that this marks the first time in construction history that such type concrete panels have been actually manufactured on the building site by the general contractor, and in any event this instance marks an accomplishment of great significance for industrial plant owners, architects, engineers, and builders.

The numerous advantages of prestressed concrete are well recognized. In many cases spans can be doubled in length as compared with reinforced concrete; fewer columns are needed to accomplish the same objective; structural strength is achieved with far less dead weight; surprising and important time savings can be made in project construction, and the architect or engineer is offered much greater design opportunities which in themselves acrue to the benefit of the owner and offer greater utility building use to the occupant.

However, use of this product has been somewhat

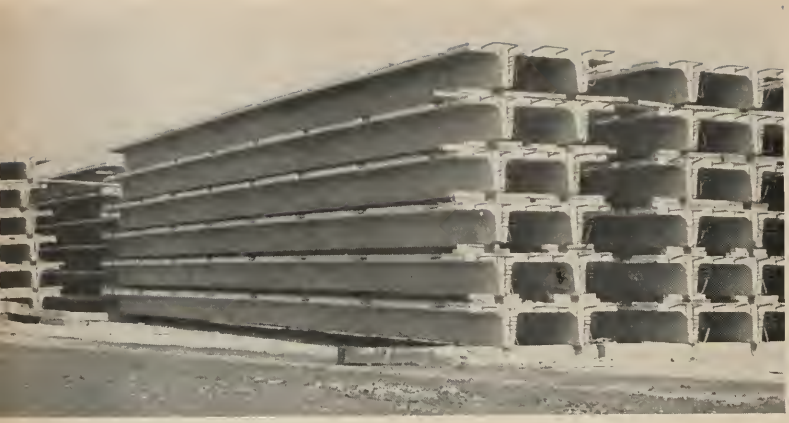
limited by availability. In Los Angeles, for instance, there is only one company that is equipped to furnish prestressed concrete as specified for the new General Electric building. A similar situation exists in many West Coast areas where industrial construction is on the up-swing, and in most instances the transportation costs of moving prestressed concrete any distance is a prohibitive factor. Where this type of construction might be considered for non-metropolitan area construction, the transportation cost alone usually precludes the possibility of its use.

Several leading Southern California contractors bid on the General Electric job. The Noyes Roach Company submitted a bid in joint-venture with C. L. Peck. Roach, along with his vice-president and chief project engineer James Wubbena, recognized that every competing contractor would likely be restricted to identical figures on the cost of prestressed concrete. Since this material was specified for some 100,000 square feet of construction in the building, representing more than 83% of the total area in the project, it was agreed that here was the place to cut the cost of construction, if possible, and submit the lowest bid price.

Calculations had to include the cost of designing, building and operating the pre-tensioning casting beds which would have to be built on the construction site,

**ABOVE: As the mixer truck rolls down the line, freshly poured lightweight concrete is vibrated and surface evened-off preparatory to being tamped down and smoothed by finishing crew.**

**AT RIGHT: Finishing crew puts final touches on pre-tensioned, prestressed concrete panels while another 350 ft. casting bed (right) is prepared for pour. Each bed accommodates eight 40-ft. panels, maintaining a 56-ton stress during the 2½ day curing period.**



**STACKED 6-HIGH**

**Some of the 496 prestreesed concrete roof panels destined to form the roof.**

as well as the usual estimates concerned with the cost of the building itself. Even figuring these extra and abnormal expenses, Roach believed he could produce the specified panels and beams on the job for less than the price quoted by the only available local firm dealing in prestress products. A comparable firm in San Francisco could not compete in supplying material for the job as it would have cost $25,000 to transport the five-hundred and eighty concrete sections to Los Angeles. Accordingly the bid of Noyes Roach Company and C. L. Peck was low and the firms in joint-venture received the contract.

Plans for the new building called for four-hundred and ninety-six roof panels and eighty-four girders. The panel dimensions being 40 ft. by 5 ft.; and girders 18 in. by 16 in. by 26 in.

Engineering Consultants T. Y. Lin & Associates worked with the general contractors in designing and setting up the casting beds. These were built to meet the specific requirements of the immediate job, without much anticipation or consideration of salvage for future use. However, some salvage is practical and contractor Roach believes that his headstart in developing this new factor in construction technique, may give

**PRESTRESSED GIRDER**

**Is lowered into position, ready to support the 40-ft. prestressed concrete roof panels.**

**Believed to be the first time prestressed concrete sections have been manufactured on site.**

him a bidding edge on future work when on-the-site prestressing appears to be the logical solution of the problem.

For purposes of the General Electric's Lamp Division project, the contractors installed four panel beds and one girder bed, each resting on a 4 in. concrete slab. Simply described, the casting beds consisted of a fabricated sheet steel form supported by reinforced concrete beams. Sufficient anchorage was provided to handle calculated stress, but the entire pre-tensioning plant was devised as a temporary facility, with a view to reasonably easy dismanteling and removal.

Hi-tensile steel cables are strung the length of each casting bed and tensioned by hydraulic jack. Twelve wires are used in the girders and eight in the roof panels. Extreme care is taken to assure that each wire gets equal tension, while a unique method of harping controls the camber of each span.

The first concrete was poured into a casting bed about sixty days after ground was broken for the warehouse and office building, indicating the preliminary work was completed without loss of time in the overall construction schedule.

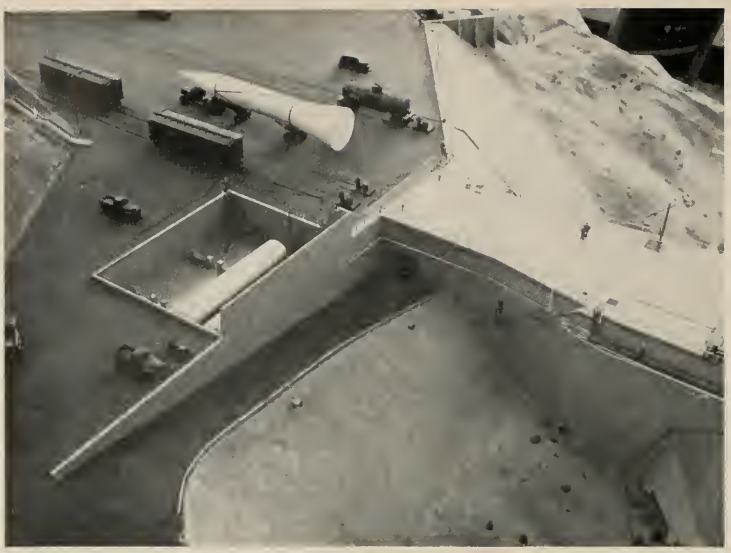
With all forms in use, some twenty-eight roof panels and seven girders were produced every three days. Meanwhile, as the stockpile of prestressed concrete sections grew, the building was taking shape. By the time the foundation and floor were finished and supporting columns were in place, the contractors were ready to start erecting the roof panels.

This, of course, represents one of the greatest advantages of using the prestress type of concrete in construction, as it provides a minimum of waiting time which is still further abetted by the convenience of having the stockpile so close at hand.

Still another time-saving construction method, i.e., tilt-up walls, is also included in the building design, and it is expected that by use of these newer methods that the General Electric, Lamp Division will be able to occupy the new facilities early in 1957. By completion date a paved parking lot will cover all evidence that here was located what is believed to be the first on-the-site prestressed concrete casting plant in the history of industrial or commercial construction.

Contractor Noyes Roach's successful experiment may induce other progressive builders to use a similar method where conditions warrant. In any event, there will be less restriction on the use of prestressed concrete in Southern California and new vistas have been opened to architects, engineers and contractors in one method of coping with ever increasing construction costs.

**AS FIRST of 496 prestressed concrete roof panels is fitted into place. Panels pre-tensioned and cast on site in specially fabricated beds, a unique construction technique newly developed.**



**MODEL**

**Shows type of massive concrete cantilever structure engineers are building to test rocket engines and missile components having up to a 1,000,000 lb. thrust.**

AIR FORCE MISSILE TESTING PROGRAM

# GIANT ROCKET TESTING STAND

California's Mojave Desert

GEORGE A. FULLER COMPANY, General Contractors

In California's Mojave Desert the Air Force is completing a giant concrete test stand which will provide the means to test rocket engines and missile components having up to 1,000,000 pounds of thrust. The new stand, an important addition to America's missile testing program, is the largest stand constructed by the Air Force to date.

Conducting static rocket engine tests and performing missile research since 1952, at the sprawling 300,000 acre Edwards Air Force Base which lies on the western edge of the Mojave Desert, stands previously constructed have been able to handle missile components of only half a million pounds of thrust.

Separated by eight miles of desert wasteland from the main part of the Base, the stark, isolated eastern section of Edwards was chosen as the site for rocket test activities because sufficient rock foundation is

**LOOKING DOWN on construction of giant rocket engine test stand.**

available for heavy concrete structures. Another important feature is that the steep cliffs permit the great distance required between test stand and the flame deflector pit.

Anchored some 60 ft. into solid rock, with an overall length of 200 ft., the new stand is designed like a reinforced concrete bridge type structure. It includes a 54 ft. concrete cantilever, 15 ft. at the outer end and 40 ft. thick at the haunch. This cantilever is approximately 150 ft. over a flame deflector pit which leads the gases from the test vehicle away from the stand.

The major problem presented in structural design of the new test stand was devising a means to carry the loading to bed-rock—and there are two opposite types of loading. The facility must be able to support extremely high dead loads, while at the same time providing sufficient uplift resistance to the million pounds thrust developed during static test firings.

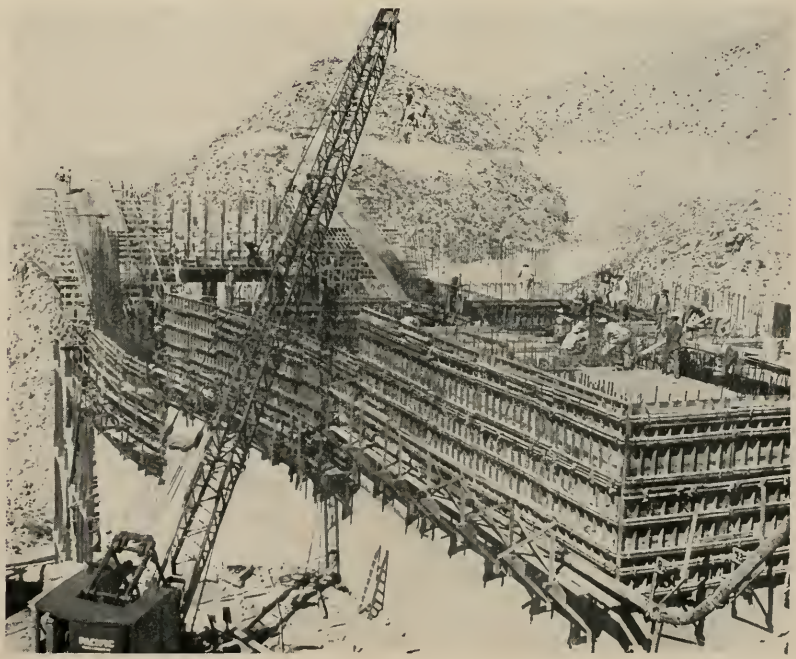
At an intermediate level below the deck, and within the shell of the stand, special servicing and utility areas are provided. These include a machine shop, terminal room for data recording instruments, electrical and mechanical equipment rooms, and office space. The Ralph M. Parsons Company of Los Angeles performed the architectural services.

Criteria for the facility was developed by U. S. Air Force engineers. Lt. Colonel Henry W. Yagel, Installations Engineer for Edwards AFB supervised for the project for the Air Force. Administrator for the project is Colonel Edwin M. Eads, AF Installations Representative, South Pacific Region.

**ONE of several test areas of the Rocket Engine Test Laboratory.**

Design and construction contract responsibility is that of the South Pacific Region, Corps of Engineers, U. S. Army, headed by Brig. General William F. Cassidy. Contracts were let through the Los Angeles District, Corps of Engineers, headed by Colonel Arthur H. Frye, Jr. Mr. Bruce Bennett is Resident Engineer for Rocket Base.

**UNIQUE**
**and**
**EXPENSIVE**



**Part of the timber falsework tower erected to support casing of the big cantilever arm of Test Stand shown in background. Tower is over 10 stories high.**

# BUSINESS DECISIONS

## That Affect Your Tax Returns

By AMERICAN INSTITUTE OF ACCOUNTANTS

Long-range tax planning in today's business world of high tax rates is no longer "big business foolishness". Last-minute tax worrying with no year-around tax thinking can result in the loss of sizeable savings for small and medium-sized businesses when it comes time to file a tax return.

For example, assume that last summer you were forced to replace your air conditioner. You shopped around and found you could either sell your old unit to a private party for $500, or a dealer in town would give you a trade-in allowance of $500 on it. That seemed like six-of-one-half-a-dozen-of-another to you; so without thinking—or worrying—about tax matters you traded in the old air conditioner.

To prove how such a seemingly simple business decision such as this can affect how much tax you will have to pay, let's assume further that the air conditioner which you traded had originally cost $2500 and that you had taken $1000 in depreciation on it. This meant its cost for tax purposes was $1500, and you were going to "lose" $1000 whether you accepted the dealer's trade-in allowance of $500 or sold to the private party for $500.

So far still six-of-one-half-a-dozen-of-another, but now since you elected to trade-in your old air conditioner, let's see how you can claim a deduction on a tax return for your $1000 loss. The answer is simple. You can't. All you can do is add the amount of the loss to the cost of your new unit, and eventually receive tax credit for your loss in the form of slightly higher depreciation deductions.

On the other hand, if you had made a bona fide sale of your old unit to the private party and a separate purchase of a new unit from a dealer, you would have established a $1000 loss which could be claimed as a loss deduction on a tax return and used to offset regular income.

It is not always true, of course, that a loss deduction on the tax return is worth two in the bush of depreciation, but a general rule to consider when you are trying to decide whether it would be more advantageous taxwise for you to sell or trade-in an asset is: sell "loss" property to obtain a deduction, and trade "profit" property to avoid the tax which must be paid on any profit realized from the sale of an asset.

You may find that you have sold yourself into a capital gains tax or traded yourself out of a loss deduction if you have not figured your depreciated costs correctly. This is a matter you should discuss with a certified public accountant. Not only can he verify the accuracy of your mathematical computations, but he can also explain the advantages and disadvantages of the various methods used to compute depreciation. It could be that the method you used or are using is not the one most suited to your business needs from a tax standpoint.

For example, if you asked a CPA whether you should use the straight-line or declining balance method to depreciate your new air conditioner, one of the first questions he might ask you would be: what are your cash requirements and what are your profits likely to be? If you are thinking of expanding and need additional cash within the next few years, he might recommend that you use the "new" declining balance method to compute depreciation.

The declining balance method "speeds up" or increases depreciation rates. This starts the chain reaction to your objective of retaining cash in the business, because when you increase depreciation rates you also increase allowable depreciation deductions on your tax return. The amount you may write-off the first year is twice what it would be if you used the straight-line method; so by applying a $1000 instead of $500 depreciation deduction against your regular income, you are going to reduce your taxes, and cash that does not have to be paid out in federal taxes can be retained in the business for expansion purposes.

It seems all good things eventually come to an end, however, and while in the first year the declining balance depreciation rate may be double that of the straight-line, this differential diminishes in succeeding years until declining balance deductions are even less than they would be under the straight-line method. This is why it is important that you consider current and future earnings before you select a depreciation method.

For example, if your current earnings are low, or if you are putting in a new line of merchandise and the results of this expansion will take a few years to show in your earnings, it might be more advantageous taxwise for you to use the straight-line method of computating depreciation.

The straight-line method does not "speed up" depreciation deductions. It spreads them out equally over the estimated useful life of the asset; so when you use a straight-line method you are saving, in a sense, for a rainy day. When your earnings improve or increase, you will have more substantial depreciation deductions to apply against those earnings. There usually is no point in increasing a loss or reducing low earnings by claiming additional depreciation deductions when you do not need them.

A point to remember when you are trying to decide whether to buy new or used equipment is that second-hand equipment **must** be depreciated by the straight-line method. This tax factor should be considered, because loss of the opportunity to use the declining balance method with its rapid write-off feature may cancel any immediate savings effected by the purchase

of used equipment.

The matter may have been decided and forgotten many years ago, but a basic question businessmen should consider from time to time—and one which has many tax implications—is whether to do business as a proprietorship, partnership or corporation. There may be personal or professional factors that force the selection and maintenance of a non-corporate form of organization, but depending on the earnings of the business and the amount of those earnings you may need to withdraw, there are certain tax advantages to be gained by incorporating a new or expanding company.

Since proprietorship and partnership income is taxed at individual rates, which range anywhere from 20 per cent to 91 per cent, and corporation earnings are taxed at corporate rates of 30 per cent on the first $25,000 earned during the year and 52 per cent on the excess, it might appear that if you have relatively low income the proprietorship-partnership rates are lower. However, you must also consider that the corporate tax carries with it the privilege of deducting a reasonable salary paid to an employee-owner. The employee-owner has to pay a personal tax on his salary, of course, but if he were not incorporated, he would have to pay a personal tax on all the money earned by the business.

If the retained earnings of the company are taxed at a corporate rate which is lower than what the personal tax rate would be, the employee-owner would benefit by having additional funds available in the corporation for expansion purposes. The funds may be accumulated in a corporation up to $60,000 without further tax penalties, and even higher if the corporation can prove a need for them.

These advantages—while they may cut your current tax bill and increase working capital for expansion needs—can be lost if you have jumped into a corporation without first reviewing your own long-range cash requirements. If you are continually forced to withdraw money from the corporate earnings to pay personal expenses, you will have to withdraw these funds in the form of dividends. That means the corporation will have to pay tax on the earnings you are withdrawing as dividends, and you will have to pay tax on the dividends received. The "double tax" on earnings and dividends can nullify any tax advantage from incorporation when earnings must be withdrawn immediately as dividends.

Many businessmen seek professional advice about tax matters as they do professional assistance with their golf game—when the slice has become almost unbearable. You can save tax dollars by realizing that business decisions made in the fall affect the amount of tax you must pay in the spring. Practice year-around tax thinking, and consult a certified public accountant when you are in doubt as to the tax effect of even the most routine business decision.

## STUART N. GREENBERG APPOINTED PUBLIC UTILITY COMMISSION

Stuart N. Greenberg, president of M. Greenberg's Sons with general headquarters in San Francisco, and president of the Josam Pacific Company, was recently appointed to the Public Utilities Commission of the City and County of San Francisco by city's mayor George Christopher.

STUART N. GREENBERG

Greenberg took over the presidency of the firm which bears his name and has been a manufacturer and supplier of fire hydrants and brass and bronze supplies in San Francisco for three generations, in 1942, and has expanded activities of the organization extensively, developing the first major improvement in fire hydrants known as the "California Type" which contains a "break-off" check.

Recognized as an outstanding civic leader, Greenberg's interest, and philanthropic activities are numerous, and he has been keenly interested in the continuous growth and development of San Francisco, as well as his business firm, which was founded in 1854 and has been in continuous operation since in the manufacture of maritime and industrial bronze valves and fittings; fire hydrants, hose valves and fire protection materials; plumbing hardware, brass and bronze specialties and plaques.

## A GREATER FORT WORTH

(From Page 15)

number that visit the central district daily at present. Thus, if cars are permitted on the downtown streets of the city in 1970, the existing street system would have to be enlarged by more than 300 per cent.

It is also estimated that the central district of Fort Worth in 1970 would require approximately 2600 trucks per day for the handling of its goods, and Architect Gruen ruled out as not workable or feasible such possibilities as widening and improving the present surface delivery system or the construction of new elevated delivery facilities, and therefore, proposes that the truck routes be underground.

What would life be like in 1970 in Fort Worth revitalized under the Gruen Plan?

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**ENGINEER OPENS OFFICES:** Albert A. Fink recently announced opening of offices for Albert A. Fink and Associates at 2717 N. Main Street, Walnut Creek, California.

# NEW CITY RISES FROM SAN FRANCISCO BAY

## Utah Construction Co. - Addition to City of Alameda

First phase of one of California's largest "private industry" tide-land reclamation projects has been completed with the giant dredge "Franciscan" depositing the last of more than 9½ million cubic yards of sand fill along the south shore of the City of Alameda.

Pumped from the bottom of San Francisco bay, more than a mile offshore, the material forms a man-made land area that will soon grow into a new residential community as it is developed by the Utah Construction Company of San Francisco.

Dredging operation, begun November 7, 1955, and operated around the clock for just over a year, has created approximately 400 acres of new land, added over a million yards of fill and some fifty-five acres to the city's Washington Park.

Work of excavating and shaping a series of land-locked lagoons, which will be the core of the development project, and grading and leveling of the fill will be undertaken immediately. This second phase of development should be completed in four months, according to Charles T. Travers, Utah Construction Company executive in charge of the project.

This will be followed by the initial construction next spring of the new South Shore Center, a 65-acre regional shopping center at the foot of Park Street, Alameda. With completion expected in 1958, the new center will have parking facilities for more than 4000 automobiles and will be of modern steel, concrete and aluminum construction with a gross building area in excess of 400,000 square feet.

Built around a colorful mall for pedestrian shoppers, the center will include a site reserved for a major department store, two supermarkets, restaurants, service stations, banks and more than fifty other business enterprises.

The first unit of approximately one-hundred homes is also expected to start next year, probably in mid-summer, in the area directly west of the shopping center and west of Willow Street extension.

Ultimately the development will include approximately 1000 homes, plus multiple dwelling units, neighborhood shopping areas, a professional and administrative zone, schools, churches and parks, and a new public beach on the perimeter.

It is estimated the development will be completed by 1960.

In addition to the South Shore development, Utah Construction Company also plans a second major addition to Alameda on 880 acres of tidelands at near-by Bay Farm Island. More than 25-million cubic yards of sand will be dredged for this development which will add 17 per cent to Alameda's land area, and will include 3500 to 4000 additional homes. It is planned to start the Bay Farm Island project by 1958.

## 9th ANNUAL INDUSTRIAL ENGINEERING INSTITUTE

The 9th Annual Industrial Engineering Institute is scheduled for February 1-2 in Dwinelle Hall, University of California, Berkeley, under the general chairmanship of Louis E. Davis.

The objective of the conference is to present to industrial engineers and managers the latest dvelopments in research and practice in these fields.

The conference is presented by the College of Engineering, School of Business Administration, Graduate School of Business Administration, Institute of Industrial Relations, and University Extension of the University of California, Berkeley, in cooperation with the American Society of Mechanical Engineers, San Francisco Section; Society for Advancement of Management, San Francisco Bay Chapter; American Institute of Industrial Engineers, San Francisco-Oakland Chapter; American Society for Quality Control, San Francisco Bay Area Section; and the American Materials Handling Society, Northern California Chapter.

## SOUTHERN CALIFORNIA CHAPTER, A.I.A.

Leon Chatelain, Washington, D.C., President of the American Institute of Architects, spoke at the January meeting on national architectural affairs and participated in the installation of newly elected officers. Assisting was Donald Beach Kirby, San Francisco, Regional Directors of the California-Nevada-Hawaii District AIA.

Cornelius M. Deasy was installed as Chapter President for 1957.

## AMERICAN INSTITUTE OF CONSULTING ENGINEERING AWARD GIVEN RALPH BUDD

The American Institute of Consulting Engineers presented its Award of Merit for 1956 to Ralph Budd, retired Chairman of the Chicago Transit Authority, at the AICE annual dinner in New York.

The citation states that the Award is to a "distinguished American, outstanding engineer, able administrator, inspiration to young engineers; pioneer in the development of his country through leadership in transcontinental rail and motor transportation."

Budd formerly was President of the Great Northern Railway and the Burlington-Rock Island Railroad. Previous recipients of the Award were Clarence D. Howe, 1952; Vannevar Bush, 1953; former President Herbert Hoover, 1954; Benjamin F. Fairless, 1955. Jr. and Affiliate Member Thomas J. Lowry.

## DISTRIBUTION INDUSTRY NAMES ARCHITECT TO HALL OF FAME

Victor Gruen, head of the Southern California architectural firm of Victor Gruen & Associates, and three other nationally known persons have recently been elected to the Hall of Fame in Distribution for 1956 by the Boston Conference on Distribution.

VICTOR GRUEN
Architect

Gruen received the honor at ceremonies in Boston before an audience of outstanding business and professional figures from all over the United States and Canada. Named to the Hall of Fame at the same time were: Pierre Laguionie, Paris, France; Robert Z. Greene; and the late Michael J. Cullen, for his contributions to supermarket development.

The Boston Conference, a national forum for distribution problems, is sponsored by the Retail Trade Board, Boston Chamber of Commerce in cooperation with Harvard University Graduate School of Business Administration, and the Massachusetts Institute of Technology School of Industrial Management.

Edward P. Brooks, Dean, M.I.T. School of Industrial Management, made the presentations.


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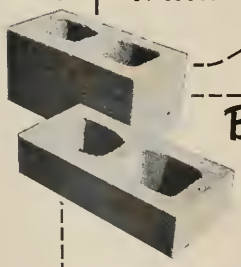

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## OREGON CHAPTER

"Plastics in Architecture" was the subject of discussion at the January meeting held in "Ireland's at Lloyds."

The Portland Art Museum was highly commended for an Architectural Forum which was presented to the public during the past few months.

## NORTHERN CALIFORNIA CHAPTER

Arthur Brown, Jr., FAIA, architect of many of San Francisco's outstanding buildings including the City Hall and Opera House, was the principal speaker at the January meeting held at DiMaggio's restaurant on Fisherman's Wharf, San Francisco.

New Members of the Chapter include: Robert P. Batchelor, Bernard C. Cohen, Scofield De Long, Albert E. Sigall, Jr., Peter C. Ingalls, and Harry J. Squeri all Corporate Members.

## WASHINGTON STATE CHAPTER

Bob Durham entertained at the January meeting with an interesting story and slides of his recent trip to Europe, showing many points and items of architectural interest. The meeting was held in the Benjamin Franklin Hotel.

New members of the Chapter include: Corporate—James Douglas Cowan, Robert Hollis Green, Donn Mueller Sibold, Alfred F. Simonson, John LeBaron Wright, Edward E. Sands, and Frederick M. Mann,

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

LAS VEGAS: Walter F. Zick, President; Aloysius McDonald, Vice-President; Edward B. Hendricks, Sec.-Treas.; Directors: Walter F. Zick, Edward Hendricks, Charles E. Cox. Office of Secy., 106 S. Main St., Las Vegas.

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Pasadena Chapter:

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San Diego Chapter:

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San Joaquin Chapter:

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Southwest Washington Chapter:

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W. J. Monroe, Jr., President, 433 Atlas Bldg., Salt Lake City; M. E Harris, Jr., Secretary, 703 Newhouse Bldg., Salt Lake City.

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Hawaii Chapter:

Robert M. Law, President; Harry W. Seckel, Vice-President: Richard Dennis, Secretary. Directors: Edwin Bauer, George J. Wimberly. Office of Secy., P.O. Box 3288, Honolulu, Hawaii.

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## ALLIED ARCHITECTURAL ORGANIZATIONS

San Francisco Architectural Club:

Frank L. Barsotti, President; Arie Dykhuizen, Vice-President; Albert Beber-Vanzo, Secty; Stanley Howatt, Treasurer. Club offices 507 Howard St., San Francisco.

Producers' Council—Southern California Chapter:

J. Morris Hales, Ceco Steel Products Corpn, President; H. C. Galitz, Westinghouse Electric Corpn, Elevator Division, Vice-President; Owen L. McComas, Arcadia Metal Products, Secretary; LeRoy Frandsen, Detroit Steel Products, Fenestra Building Panel Division, Treasurer.

Producers' Council — Northern California Chapter (See Special Page)

Construction Specifications Institute—Los Angeles:

D. Stewart Kerr, AIA, President; R. R. Coghlan, Jr., Vice-President; W. F. Norton, Secretary; Malcolm Lowe, Treasurer. E. Phil Filsinger, Liaison Officer, Producers' Council, Gladding, McBean & Company.

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Jr.; Junior Associate Members — Frederick William Hollander, Jr., Trulyn Gene Connelly, Jerald Dene Kesterson, and Donald DeClifford Myers; and Student Associate—Harry Lakis and Joseph H. Onuma.

## PASADENA CHAPTER

A certificate of award was presented C. F. Shoop of the Independent Star-News at the January meeting, for his many contributions to the knowledge of the history of architecture in his weekly column, "Auld Lang Syne." Shoop also spoke on the subject "The Heritage of Architecture in Pasadena," and following his talk a motion picture on Swiss architecture was shown.

Recent NEW MEMBERS include: Phillip R. Bates, Robert M. Hernandez, Gordon P. Hughes, and Edward J. Reese, Associate Members.

## CENTRAL ARIZONA CHAPTER

Michael Padev was the speaker at a joint meeting with the Engineers, held January 24 in Holiday Restaurant, Phoenix.

Among the new architects registered to practice in Arizona were: John Chopas, Alexis Alexander Zakharoff, Richard Allen Kiebel, Logan Elbert Campbell, Barrie Howard Groen, Ehrman Burkman Mitchell, Jr, Frank Lloyd Wright, and Jan C. Rowan all of Phoenix.

## CALIFORNIA COUNCIL OF ARCHITECTS

The CCA has moved its general offices into new quarters at 550, 703 Market Street, San Francisco, according to an announcement by John Lyon Reid, San Francisco architect and Council president.

The Council has published a newly revised version of its recommended schedule of compensation for architectural services. Copies are available at 15 cents each from Council offices.

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Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Walter L. Dickey, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 411 Market St., San Francisco.

Structural Engineers Association of Central California

C. M Herd, President (Sacramento); L. F. Greene, Vice-President (Sacramento); J. F. Meehan, Secy.-Treas. Directors: C. M. Herd, L. F. Greene, L. G. Amundsen, W. A. Buehler, R. W. Hutchinson. Office of Secy., 68 Aiken Way, Sacramento.

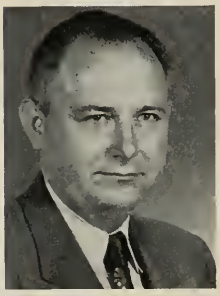
American Society of Civil Engineers Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA PRESIDENT

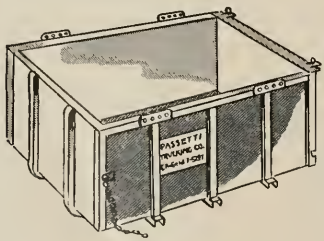
Henry J. Degenkolb, Structural Engineer, San Francisco, was elected President of the Northern California Structural Engineers Association for the year 1957, succeeding Walter L. Dickey, Structural Engineer with the Bechtel Corporation. Elected to serve with him were: J. Albert Paquette, partner in the Structural Engineering firm of Kellberg, Paquette & Maurer, Vice-President; Donald M. Teixeira, with John A. Blume, Structural Engineers, Secretary; Samuel H. Clark, District Engineer, American Institute of Steel Construction, Inc., Assistant Secretary; William K. Cloud, Treasurer. Named to the Board of Directors, in addition to Degenkolb and Paquette, were: Harold S. Kellam of Hall, Pregnoff and Matheu, San Francisco Structural Engineers; John M. Sardis, San Francisco Consulting Engineer; Charles DeMaria of H. J. Brunnier, San Francisco Structural Engineers; and James L. Stratta of Simpson and Stratta, San Francisco Consulting Engineer.



**HENRY J. DEGENKOLB**
**SEANC President**

Degenkolb graduated from the University of California in Civil Engineering in 1936, and spent the next three years in the Structural Engineering Department of the San Francisco Bay Exposition designing buildings for the Golden Gate International Exposition. After working with various consulting engineers in San Francisco, he became associated with the Timber Test project, a timber research program sponsored by the American Society of Civil Engineers and the University of California. Following the War, Degenkolb became associated with John J. Gould as a partner.

He is a member of the American Society of Civil Engineers, at present serving as national chairman of the Committee on Timber Structures; Member of the Seismological Society of America; Member of the Earthquake Engineering Research Institute, and Chairman of the Building Code section of the San Francisco Chamber of Commerce.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## FEMINEERS

In keeping with the theme for the day, "Ring Out The Old—Ring In The New," THE FEMINEERS held their annual Installation Ceremony for the newly elected officers on their regular luncheon meeting day, Wednesday, January 16, 1957, at The Elks' Club, San Francisco. A social hour preceded the meeting, beginning at 11:45 a.m. with luncheon served at 12:30 p.m.

The meeting began with a brief summary of the highlights of the past term and history of the Femineers, presented by Mrs. John Fies, President. Officers elected for 1957 at the annual business meting in November and installed at this meeting were President-elect, Mrs. Victor R. Sandner of Berkeley; Vice-President-elect, Mrs. Burr H. Randolph of Fairfax; Directors-elect, Mrs. John F. Mitchell of Berkeley and Mrs. Thomas Power of Oakland. Re-elected to office are Mrs. Howard Schirmer, Secretary-elect of Oakland and Mrs. Fred Nicholson, Treasurer-elect of Daly City. Directors continuing their two-year reign are

Barbara Counties Branch. Robert L. Ryan, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

R. D. Dewell, President; H. Christopher Medbery, 1st Vice-President; William W. Moore, 2nd Vice-President; Bernard A. Vallerga, Treasurer; Robert M. Kennedy, Secretary. Office of Secty. 604 Mission St., San Francisco.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

William T. Wheeler, President; R. W. Binder, Vice-President; Albin W. Johnson, Secy.-Treas.; Directors Roy G. Johnson, David M. Wilson, Harold L. Manley and Cydnor M. Biddison. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

Americon Society Testing Materials
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H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy., c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Col. Wm. F. Cassidy, President; Cmdr. W. J. Valentine, 1st Vice-President; Col. Edwin M. Eads, 2nd Vice-President; Bob Cook, Secretary; C. D. Koerner, Treasurer. Directors Col. J. A. Graf, Capt. A. P. Gardiner, P. W. Kohlhaas, C. G. Austin and C. R. Graff.

---

Directors Mrs. John Harrington of Daly City and Mrs. F. W. Kellberg of Oakland, with the outgoing President, Mrs. John Fies of San Carlos acting in the capacity of Ex-Officio for the 1957 term.

Table decorations were arranged by Mrs. John M. Sardis of Berkeley, and reservations by Mrs. James M. Smith of San Francisco. Mrs. Donald H. Moyer of Berkeley assisted with collections at the door.

At this meeting, members of all committees for 1957 were announced and will begin functioning in March, with the exception of the Program Committee, which will begin to function in April, 1957.

Immediately following the business meeting, members and guests were entertained with games, arranged by the co-chairman of the Program Committee, Mrs. Herman V. Yank of San Francisco.

Most recent member joining The Femineers is Mrs. Douglas C. Moorhouse of Castro Valley.

## ENGINEERS WEEK FEBRUARY 18-23

Howard Schirmer and Robert Harrington, members of the Structural Engineers Association of Northern California, have been appointed to handle plans for annual observation of Engineers Week, a national event which will be observed this year the week of February 18-23.

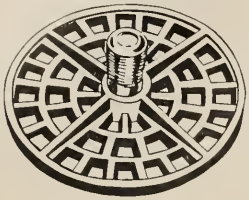
Engineers Week is an effort nationally to acquaint the public with facts about Engineering and the role engineers play in our national welfare.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

The Structural Engineers Association of Southern California held 1957's first dinner meeting January 2 at the Rodger Young Auditorium. Past President Wheeler introduced the new officers and directors: R. W. Binder, president; Joseph Sheffet, vice-president; Albin W. Johnson, Secretary-Treasurer; Roy G. Johnson, David M. Wilson, Jack N. Sparling, William A. Jensen and William T. Wheeler, directors. Messrs. Binder and Sheffet are also directors.

Problems of planning and structural design resulting from the relaxation of the 13 story 150 foot height limit for buildings in Los Angeles was the evening's subject. Mr. R. W. Binder, chairman of the Association's Special Committee on Seismic Forces, presented the program in conjunction with Mr. Edward Lindskog, structural engineer with the Los Angeles Depart-

# The C & H



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ment of Building & Safety, and Mr. Karl Ourston, city planner with the City of Los Angeles.

Despite the passage of the Charter Amendment last November by the electorate authorizing the City Council to permit buildings of any height with certain limitations, it will still be some time before permits for such construction may be issued. This Amendment must next be approved by the State Legislature and, subsequently, an appropriate Zoning Ordinance Amendment approved by the Mayor and City Council. Simultaneously, the City Council will need to approve an Amendment to the Building Code setting forth criteria for the seismic design of these taller structures — a subject of particular interest to the structural engineering profession.

Even after the final Building Code Amendments have been agreed upon and become part of the Code, the committee still feels that a great deal of sound engineering judgment and experience above and beyond the minimum requirements of the Code will be required to construct tall buildings that will perform satisfactorily in Southern California earthquakes.

ENGINEER CHANGES NAME: The firm of Russell H. Fuller, Structural Engineer, 693 Mission Street, San Francisco, has changed its name to Fuller and Welisch, Structural Engineers, address remaining the same. Fuller, former resident of Portland, Oregon, is a graduate of the George Washington University, Washington, D.C. Welisch, native San Franciscan, is a graduate of the University of California.

## AIA POSTAGE STAMP COMPETITION

The year 1957 marks the 100th Anniversary of the founding of the American Institute of Architects, on February 23, 1857.

To focus public attention on this important milestone, a nation-wide competition for a suitable design for a commemorative U. S. postage stamp has been authorized by the board of directors of the AIA.

The Competition has been approved by the Committee on Architectural Competitions of the AIA and

(See Page 32)


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### OPENS NEW SEATTLE OFFICES

Loren Bartlett has been appointed Sales Manager of the Northwest Division of Pacific Tile and Porcelain Company, and will assume charge of the new offices the firm is opening in Seattle, Washington.

Opening of the new sales office and warehouse marks another forward step in the firm which was organized in 1933.

### PLACER COUNTY WELFARE BLDG.

Architect Raymond Franceschi, 2015 J. Street, Sacramento, is working on drawings for construction of a Welfare Building for the Placer county Board of Supervisors to be built on the County Hospital grounds in Auburn at an estimated cost of $90,000.

The 1-story concrete block and frame building will have pipe columns, aluminum sash, concrete floors, and an air conditioning system.

### CONTRACTOR NAMED TO NATIONAL LABOR BOARD

Frank J. Rooney, Miami, Florida, president of the Associated General Contractors of America, has been selected by the Secretary of Labor to represent the national association of construction general contracting firms on the management-labor committee which Secretary of Labor James P. Mitchell has appointed to develop specific recommendations for amendment of the Taft-Hartley Act with reference to its application to the construction industry.

Rooney has had extensive experience in labor relations, serving for many years as a member of the AGCA's Labor Committee and its Policy and Negotiations Subcommittee. He has also been a leader in apprentice training activities nationally and in Florida.

### PRICE TAGS ON HOUSES WILL GO HIGHER

The nation's home builders expect higher price tags on houses constructed in 1957, and housing starts are expected to be down from those recorded in 1956.

These conclusions are based upon a survey of 600 home builders made by the National Association of Home Builders, and released by Joseph B. Haverstick, organization president.

The survey disclosed that the medium price on the 1957 house is expected to be about $15,200 as compared to $14,700 in 1956, or an increase in cost of about 3.4 per cent.

### FRED B. ORTMAN RETIRES FROM GLADDING McBEAN BOARD

Fred B. Ortman has retired from the position of chairman of the board of Gladding, McBean & Company, after 36 years of continuous service in an executive capacity, and following his retirement directors amended the firm's by-laws to eliminate the office of chairman of the board.

Ortman will continue as a member of the board and of the executive committee of the company and will serve in an advisory capacity to management with headquarters in Los Angeles.

Ortman was appointed vice-president and general manager of Gladding, McBean & Company in 1923, and in 1938 was elected president. In 1953 he was elected chairman of the board of directors, holding both the office of board chairman and president until 1955 when C. W. Planje was elected president.

During the 35 years he has been an executive of the firm the company's sales have grown from $6,000,000 to $35,000,000 annually, and the company has become nationally prominent as the country's largest manufacturer of diversified ceramic products.

### HOLMES & NARVER, INC. WIN HAWAIIAN CONTRACT

Engineering studies and preliminary plans for a complete sewerage system for the community of Kailua, Oahu, T.H., have been undertaken by Holmes & Narver, Inc., Los Angeles engineers and constructors, under a contract with the City and County of Honolulu.

The assignment covers studies and plans for sewer lines, a sewage treatment plant, pumping station and an ocean outfall where water pollution is avoided owing to the extensive use of the beaches in the area as recreational areas.

### ROGER J. DELANDER NAMED SALES MANAGER

Roger J. Delander of San Francisco, has been appointed Western Sales Manager in a new organization for fluorescent lighting fixtures of the Sylvania Electric Products Corpn.

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## LARGE NUMBER PASS RECENT ARCHITECTURAL EXAMS

A large number of applicants successfully passed the recent examination for certification in California, according to an announcement from the California State Board of Architectural Examiners.

Included among the newly licensed Architects in California are:

Daniel G. Barnard, Martin Borenstein, William L. Close, Jr., Robert L. Hamilton, Michel A. Marx, Stefan A. Novak, Armas Sootaru, and Dudley L. Winterhalder of Berkeley; IB Barre', Edwin L. Chuck, John U. Clowdsley, Jr., and James G. Hanson of Oakland; Robert P. Batchelor, William C. Foard, Richard A. Gilbert, Norman M. Karasick, George A. Kennaday, Peter Kirby, Yow Y. Lee, Robert J. Malerbi, Angelo Musso, and Albert E. Sigal, Jr., San Francisco; John A. Bayer, Jack E. Causey, and Philip C. Patterson of West Covina; Edwin B. Bergeson, Sausalito; Edgar B. Vlack, Jr., Corwin H. Eberting, Jr., and C. Thomas Wolfe of Manhattan Beach.

Bernard J. Bloch, and Harold W. Teague of Mill Valley; William L. Carmen, Kenneth P. Elvin, Leonard E. Lincoln, Douglas A. Low, and Cornelius C. Schnell of Palo Alto; Robert S. Chang, El Sobrante; James Charlton, and Norbert W. Pieper, Santa Monica; William R. Clabaugh, Redding; Bernard C. Cohen of Daly City; Glenn R. Cook, Glendale; Robert E. Crippen, Woodland; Norton S. Curtis, and Warren B. Heid, San Jose; Donald A. Davis, and Kenneth S. Wing, Jr., Long Beach; Walter D. Domingos, Jr., Claremont; Arthur C. Evans, Riverside.

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Hassouna, Monterey Park; Walter S. Frederick, San Bruno; Raphael N. Friedman, Chicago, Ill.; John G. Garritson, Sherman Oaks; George S. Goddard, and E. Allan Steinau, Jr., Belvedere; Calvin W. Goss, and Lorrin L. Ward, Bakersfield; Richard A. Gray, Bryn Mawr, Pa.; Reinhard D. Guyot, Burbank; Charles D. Hageman, Orinda; James A. Harris, Newport Beach; Robert H. Hietbrink, North Hollywood; Arthur C. Hoelck, and Alfonso Macy, San Diego; J. Lindsay Howden, Piedmont; William A. Hutcheson, Jr., San Rafael; William K. Jehle, El Centro; Robert J. Keeney, Medford, Oregon; Arthur H. Kensler, Santa Paula; Chester J. Kielan, Clovis; Edgar R. Kimball, St. Louis, Missouri.

Jean G. Killion, Edward G. Krause, William G. Laffin, Alvin J. Levin, Joseph Mayekawa, Harold F. Munselle, Perry Neuschatz, Wayne G. Pippin, John B. Sjoberg, Russell Thomas, and Bernard B. Zimmerman of Los Angeles; George T. Kirkpatrick, Pasadena; Kenneth C. Kruger, Ventura; Walter D. Lucas, Walnut Creek; Angelo P. Lucia, and William E. Mader, Reseda; Clovis McGuire, and Dean F. Under, Sacramento; Richard A. McKnew, Sepulveda; Serifo J. Menegon, Albany; Richard R. Moore, Santa Clara; Akira Nishioka, Fresno; John D. Sandt, South Gate; William E. Sexton, Redwood City; J. Richard Shelley, Garden Grove; Jack H. Simison, La Canada; Murray A. Slama, Walnut Creek; Calvin C. Straub, Altadena; Irving K. Weber, Pacific Palisades; and William A. Whifler, Hillsborough.

## STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA

The Structural Engineers Association of California has requested that Governor Goodwin Knight, as the appointive authority for the licensing boards, and the State Legislature as the representative of public interest give immediate consideration to the reorganization of the Board of Registration for Civil and Professional Engineers.

The SEAC has also urged all cities and counties to place in responsible charge of building control agencies registered engineers or licensed architects.

**SAN FRANCISCO BRIDGE COMPANY HONORED:**—The San Francisco Bridge Company has been awarded a sustaining membership in the Society of American Military Engineers, according to an announcement by Commander William J. Valentine, USN, and vice-president of the Society's San Francisco Post. The recognition was awarded "as a token appreciation to the San Francisco Bridge Company for its many contributions to military engineering."

*PHOTO CREDITS:—Architectural Division-Porcelain Enamel Publicity Bureau, Cover; San Francisco Museum of Art, Page 4; Photo Art Commercial Studio, Page 6, 7, 8, 9, 10, 11; Gordon Sommers Photo, Page 13 (top), 14, 15 (bottom); Victor Gruen, Architect, Page 13 (bottom), 15 (top); Albert C. Martin and Associates, Architects, Page 16; Dept. of the Air Force, Page 20, 21; Utah Construction Co., Page 24.*


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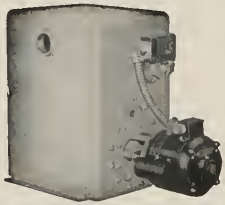

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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**CALIFORNIA HOUSES OF GORDON DRAKE. By Douglas Baylis and Joan Parry. Reinhold Publishing Corpn., 430 Park Ave., New York 22. Price $6.50.**

The quantity of the work of Gordon Drake, young designer who met a tragic death in 1952, was slight, but the quality of the work of this young 34 year old was great.

In this book, well written and profusely illustrated, the authors have recorded Gordon Drake's work distinguished by his use of indoor-outdoor continuity, modular construction, and architecturally-used light and by his use of restraint. Most of his work, however, is distinguished by his own imagination and honesty, qualities that won for him national recognition and highest awards.

With its more than 100 illustrations, including two in full color, this book will bring Gordon Drake's name and art to the attention of architects and designers, and others, sensitive to great architecture.

**SCHOOL PLANNING AND BUILDING HANDBOOK. By N. L. Engelhardt, N. L. Engelbright, Jr., and Stanton Leggett. Dodge Books, 119 W. 40th St., New York 18. Price $12.75.**

With knowledge and experience gained from years of successful practice as educational consultants, the authors have written and compiled the only complete, practical handbook dealing with every phase of executing school buildings and school building programs. This comprehensive work is, therefore, most valuable for anyone concerned with planning, designing, financing, building and equipping today's school buildings.

Contributions representing 85 leading authorities, include prominent school superintendents and administrators, architects, engineers, and other school building professionals.

The book's 40 detailed chapters are fully illustrated with plans, charts, diagrams and other graphic material. It is an

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Hollywood Jr. showing adjustable metal sash.

Hollywood Jr. showing removable sash unit.

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- No more sagging, flimsy screen doors which invite intruders.
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- Burglar-proof. A simple touch of fingers locks sash.

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APPRAISAL AND VALUATION MANUAL, 1956-57, Vol. 2. By Paul B. Hoffman, Editor and Chairman, Manual Editorial Board. American Society of Appraisers, Manual Division, 119 W. 57th Street, New York 19. Price $15.00.

A source book of latest authoritative information on the solution to appraisal and valuation problems encountered in business and government. The 500-page Manual contains more than 40 hitherto unpublished technical studies, all prepared by top-ranking professional experts in the appraisal and valuation fields, and comprising a wide range of topics related to every phase of valuation and appraisal in all branches of real estate, architecture, building construction, public works, engineering, insurance, accounting, law, taxes, assessments, banking and finance, public utilities, industry, commerce, fine arts and antiques, plus every facet of government.

Contains a bibliography of other written works on specialized subjects in the field, a guide to legal decisions and terminology applying to appraisal and valuation questions.

TIMBER DESIGN AND CONSTRUCTION HANDBOOK. By Timber Engineering Company. Dodge Books, 119 W. 40th St., New York 18. Price $12.75.

Written by 25 engineers and specialists, and edited and reviewed by a special nine-member editorial committee of the Timber Engineering Company, an affiliate of the National Lumber Manufacturers Association, this new book serves two definite purposes: It is a comprehensive timber design reference, and it is a practical field handbook. It offers every piece of essential information needed to develop and construct the best, most economical wood structures.

ARCHITECTURAL GRAPHIC STANDARDS, 5th Edition. By Charles G. Ramsey, AIA, and Harold R. Sleeper, FAIA. John Wiley & Sons, Inc., 440 4th Ave., New York 16. Price $18.50.

With T-square and drawing board, Architectural Graphic Standards forms a trio of tools almost certain to be encountered wherever there are architects and builders. The fifth edition is bigger and better, its new features are numerous: every page of the fourth edition has been completely reviewed, omitted, redrawn, or revised, vast majority of material is new.

Design of plank and beam framing, curtain walls, pneumatic tubes, elevators and escalators, design of special fireplaces, comparative costs of roof covering, furniture and equipment, and ceramic tile and its correct usage, have all been added. The many drawings and clarified index makes this book an essential part of any construction office.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Throat dampers.** New booklet describes "a throat damper for any fireplace"; (AIA File No. 14-E) Expansion Steel damper, Steel-slope cast iron damper, Beneform Universal damper, and other constuction items; typical details of construction and installation; photographs of completed installations. Free copy, write DEPT.-A&E, Bennett-Ireland, Inc., Norwich, New York.

**Junior height compartments for kindergarten.** 20-page Mills metal compartment catalog for 1957 (AIA FILE 35-H-6); includes toilet compartments, shower and dressing rooms, shower units and hospital cubicles; color samples of 20 standard colors, porcelain enamel or baked-on enamel finishes included in catalog; special design and construction features; complete specifications and detail drawings of typical layouts; standard hardware and fittings are illustrated. Free copy write DEPT-A&E, The Mills Co., 951 Wayside Road, Cleveland 10, Ohio.

**Rolling doors and rolling grilles.** New 12-page Catalog (AIA File No. 16-D-13) describes complete line of rolling doors, fire doors, flat slat shutters, rolling grilles, sliding grilles, escalator enclosures with hand and motor operators for all types; illustrates each product, detail drawings, specifi-


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**High strength epoxy resin adhesives.** 11-page technical bulletin gives engineering data on high strength epoxy resin adhesives for metal to metal bonding and honeycomb sandwich construction; data on five representative epoxy resin adhesives; properties and performance data, room temperature curing types and elevated temperature curing types are discussed; general information, product description, application and curing procedures. Free copy, write DEPT.-A&E, Minnesota Mining & Mfg. Co., 423 Piquette Ave., Detroit 2, Mich.

**Zinc coating.** New brochure on inorganic zinc coating for structural steel, tank interiors, and exteriors, towers and equipment; unusually resistant to weathering, abrasion, salt and fresh water, solvents and petroleum products; can be applied by spray before or after construction; describes general, physical and chemical properties of product. Free copy write DEPT.-A&E, Amercoat Corpn., 4809 Firestone Blvd., South Gate, Calif.

**Forming system forms and hardware.** Eight-page brochure describes forming system and hardware for light construction; forms are described in detail, the Champ form, the light construction panel with steel cross members; the high strength panel, steel-ply, mag-ply, "H" wide panel and "lo-wall" mag form; also describes Symons pilasters, corners, fillers, walers, bracing, scaffolding, shores and ties. Copies available write DEPT.-A&E, Symons Clamp & Mfg. Co., 4249 Diversey Ave., Chicago 39, Ill.

**Packaged device for drying lumber.** New 8-page bulletin describes packaged device for automatically drying lumber; for use by lumber and furniture manufacturers and for manufacturers of products which incorporate components made of wood; shows how Dryalator brings high speed automation to wood and lumber drying; illustrated; table of drying speeds; installation diagram; factory assembled and fully pre-tested; ready for operation; complete specifications. Copy available write DEPT.-A&E, Orr & Sembower Inc., Morgantown Road, Reading, Pa.

**Corrosion-resistant plastic equipment.** New 32-page catalog covers the corrosion-resistant plastic equipment of Haveg Industries; gives complete coverage to wide range of synthetic resin formulations; details pipe and fittings, valves; fume ducts and fume systems; tanks, towers and accessory supplies; heat exchanges; pressure and vacuum equipment; and agitators; also data on chemical resistant cements. Copy, write DEPT.-A&E, Haveg Industries, Inc., 900 Greenbank Rd., Wilmington 8, Delaware.

**Self supporting jib cranes.** An informative folder, with illustrations and data on jib cranes; capacities from 6 to 50 tons, require less than 5 sq. ft. floor space, yet serve an area of 1,936 sq. ft.; full 360 degree rotation and are self supported on either base mounted or pillar mounted columns; effective in handling such items as castings, cargo crates, ingots, machine tools, pattern molds, power units, and other loads within the 30,000 lb. class. Free copy write DEPT.-A&E, R. G. LeTourneau, Inc., 2399 S. MacArthur, Longview, Texas.

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All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$150.00 up (according to class of work).
Face Brick—Per 1 M laid—$200.00 and up (according to class of work).
Brick Steps—$3.00 and up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.30 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

Glazed Structural Units—Walls Erected—

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| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$111.00 to $147.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

Building Tile—

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

Hollow Tile—

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

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### BUILDING PAPER & FELTS—

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| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| Brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| Sheathing Papers— | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |
| Felt Papers— | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |
| Roofing Papers— | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $2.70 | $3.45 |
| Top Sand | 2.80 | 3.55 |
| Concrete Mix | 2.75 | 3.50 |
| Crushed Rock, ¼" to ¾" | 3.10 | 3.85 |
| Crushed Rock, ¾" to 1½" | 3.10 | 3.85 |
| Roofing Gravel | 2.90 | 3.65 |
| River Sand | 2.95 | 3.45 |
| Sand— | | |
| Lapis (Nos. 2 & 4) | 3.35 | 4.10 |
| Olympia (Nos. 1 & 2) | 2.95 | 3.45 |

Cement—
Common (all brands, paper sacks), Per Sack, small quantity (paper) $1.25
Carload lots, in bulk, per bbl. 3.59
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.00 er bbl. f.o.b. warehouse or $5.40 delivered.
Cash discount on L.C.L. 2%
Trinity White, Medusa White, Caleveras White—1 to 100 sacks, $3.50 sack; warehouse or del.; $11.40 bbl. carload lots.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk $14.50
Curing Compound, clear, drums, per gal. 1.03

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .21 | $ .21 |
| 6x8x16-inches, each | .26 | .26 |
| 8x8x16-inches, each | .30 | .30 |
| 12x8x16-inches, each | .41 | .41 |
| 12x8x24-inches, each | — | .64 |

Aggregates—Haydite or Basalite
¾-inch to ⅜-inch, per cu. yd. $7.75
⅜-inch to ⅛-inch, per cu. yd. 7.75
No. 6 to 0-inch, per cu. yd. 7.75

### DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square.
Membrane waterproofing—4 layers of saturated felt, $12.00 per square.
Hot coating work, $6.00 per square.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

### ELECTRIC WIRING—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices very according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

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Composition Floors, such as Magnesite, 40c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.50 per sq. yd.
Battleship Linoleum—$5.00 sq. yd. & up laid.
Terazzo Floors—$2.00 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Oak Flooring—T & G—Unfin.—

| | 13/16x2¼ | ½x2 | ⅜x2 | ⅝x2 |
|---|---|---|---|---|
| | $425 | $405 | $ | $ |
| Clear Otd., White | | | | |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

Prefinished Oak Flooring—

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 25/32 x 2¼ | 390.00 | 381.00 |
| 25/32 x 2¾ | 375.00 | 355.00 |
| 25/32 x 3¼ | 395.00 | 375.00 |
| 25/32 x 2¼ & 3¼ Ranch Plank | | 415.00 |

Unfinished Maple Flooring—

| | |
|---|---|
| 25/32 x 2¼ First Grade | $390.00 |
| 25/32 x 2¼ 2nd Grade | 365.00 |
| 25/32 x 2¼ 2nd & Btr. Grade | 375.00 |
| 25/32 x 2¼ 3rd Grade | 240.00 |
| 25/32 x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| 25/32 x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| | |
|---|---|
| Furnaces—Gas Fired | |
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| Water Heaters—5-year guarantee | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALL8OARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S No. 2 and better common O.P. or D.F., per M. f.b.m. ..... $110.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. B & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-S1S ..... $100.00
½-inch, 4.0x8.0-S1S ..... 150.00
¾-inch, per M sq. ft. ..... 210.00
Plyform ..... 87.00

**Shingles (Rwd. not available)—**

Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.

Average cost to lay shingles, $6.00 per square.

Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25

¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00

Average cost to lay shakes, $8.00 per square.

**Pressure Treated Lumber—**

Salt Treated ..... Add $35 per M to above

Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50

Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standerd.

D. F. $150 per 1000, R. W. Rustic air dried $175 per 1000 (delivered).

Complete door unit, $15 to $25.

Screen doors, $8.00 to $12.00 each.

Patent screen windows, $1.25 a sq. ft.

Cases forf kitchen pantries seven ft. high, per lineal ft., upper $9.00 to $11.00; lower $12.00 to $13.00.

Dining room cases, $20.00 per lineal foot. Rough and finish about $1.50 per sq. ft.

Labor—Rough carpentry, warehouse heavy framing (average), $75.00 per M.

For smeller work average, $85.00 to $100. per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .80 |
| Three-coat work | per yard | 1.20 |
| Cold water painting | per yard | .35 |
| Whitewashing | per yard | .20 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

Price to Painters—Price Per 100 Pounds

| | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ .... | $ .... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.50 lineal foot |
| 8-inch | 3.00 lineal foot |
| 10-inch | 4.00 lineal foot |
| 12-inch | 5.00 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.50 |
| Keene cement on metal lath | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.50 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.25 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.50 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Rock or Grip Lath—$\frac{1}{2}$"—32c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.

Less than 30 sqs. $18.00 per sq.

Tile $40.00 to $50.00 per square.

No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25

5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 14.50

5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25

4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00

Re-coat with Gravel $5.50 up per sq.

Asbestos Shingles, $27 to $35 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00

Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.

| | |
|---|---|
| Standard, 4-in. | $ .26 |
| Standard, 6-in. | .46 |
| Standard, 8-in. | .66 |
| Standard, 12 in. | 1.30 |
| Standard, 24-in. | 5.41 |

Clay Drain Pipe, per 1,000 L.F.

L.C.L., F.O.B. Warehouse, San Francisco:

| | |
|---|---|
| Standard, 6-in. per M. | $240.00 |
| Standard, 8-in. per M. | 400.00 |

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.

Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

| | |
|---|---|
| Galvanized iron, per sq. ft. | $1.50 |
| Vented hip skylights, per sq. ft. | 2.50 |
| Aluminum, puttyless, (unglazed), per sq. ft. | 1.25 |
| (installed and glazed), per sq. ft. | 1.85 |

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.

$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.85 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.85 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.50 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - $\frac{3}{16}$" ..... $ .18 - $ .35 sq. yd. Light shades slightly higher.
Cork Tile—$ .70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| | F.O.B. S. F. |
|---|---|
| Scored 12 x 12, each | $ .17 |

| Kraftile: Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x ⅞-inch, plain | $ .28 | $ .253 |
| 6 x 12 x ⅞-inch, plain | .295 | .265 |
| 6 x 6 x ⅞-inch, plain | .32 | .287 |

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

## VENETIAN BLINDS—

50c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# ARCHITECT AND ENGINEER
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

EXPLANATION—Building and construction materials are shown in major classified groups for general identification purposes with names and addresses of suppliers of materials listed in detail under group classification where name first appears—main offices are shown first with branch or district offices following. The numeral appearing in listings *(3) refers to the major group classification where complete data on the dealer, or representative, may be found.

**ADHESIVES (1)**
Wall and Floor Tile Adhesives
THE CAMBRIDGE TILE MFG. CO. *(35)

**AIR CONDITIONING (2)**
Air Conditioning & Cooling
UTILITY APPLIANCE CORP.
Los Angeles 58: 4851 S. Alameda St.
San Francisco: 1355 Market St., UN 1-49DB

**ARCHITECTURAL PORCELAIN ENAMEL (2a)**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard & Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Soecialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER (3)**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611
ROBCO OF CALIFORNIA, INC.
San Francisco: 260 Kearny St., GA 1-6720
Los Angeles: 2366 Venice Blvd., RE 1-4067
Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station
Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339
Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING (4)**
CROCKER FIRST NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BATHROOM FIXTURES (5)**
Metal
THE CAMBRIDGE TILE MFG. CO. *(35)
DILLON TILE SUPPLY COMPANY
San Francisco: 252 12th St., HE 1-1206
Ceramic
THE CAMBRIDGE TILE MFG. CO. *(35)

**BRASS PRODUCTS (6)**
GREENBERG'S, M. & SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4: 1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK (7)**
Face Brick
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
REMILLARD-DANDINI CO.
San Francisco 4: 400 Montgomery St., EX 2-4988

**BRONZE PROUCTS (8)**
GREENBERG'S, M. & SONS *(6)
MICHEL & PFEFFER IRON WORKS *(38)

**BUILDING PAPERS & FELTS (9)**
ANGIER PACIFIC CORP.
San Francisco 5: 55 New Montgomery St., DO 2-4416
Los Angeles: 7424 Sunset Blvd.
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY
San Francisco 5: 55 New Montgomery St., EX 2-3066
Chicago, Ill.: 205 West Wacker Drive

**BUILDING HARDWARE (9a)**
THE STANLEY WORKS
San Francisco: Monadnock Bldg., YU 6-5914
New Britain, Conn.

**CABINETS & FIXTURES (9b)**
FINK & SCHINDLER CO., THE;
San Francisco: 552 Brannan St., EX 2-1513

**CEMENT (10)**
IDEAL CEMENT COMPANY (Pacific Division)
San Francisco 4: 310 Sansome St., GA 1-4100
PACIFIC COAST AGGREGATES, INC. *(11)

**CONCRETE AGGREGATES (11)**
Ready Mixed Concrete
PACIFIC COAST AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
Lightweight Aggregates
AMERICAN PERLITE CORP.
Richmond: 26th & B St. - Yd. 2, RI 4307

**CONCRETE ACCESSORIES (11a)**
Screed Materials
C & H SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONSTRUCTION SERVICES (11a)**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF (11b)**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS (12)**
THE BILCO COMPANY
New Haven, Conn.
Electric Doors
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089
Folding Doors
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971
Hollywood Doors
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas
Screen Doors
WEST COAST SCREEN DOOR CO.
(See above)

**FIRE ESCAPES (13)**
MICHEL & PFEFFER IRON WORKS *(38)

**FIREPLACES (14)**
Heat Circulating
SUPERIOR FIREPLACE CO.
Los Angeles: 1708 E. 15th St., PR 8393
Baltimore, Md.: 601 No. Point Rd.

**FLOORS (15)**
Hardwood Flooring
HOGAN LUMBER COMPANY
Oakland: Second and Alice Sts., GL 1-6861
Floor Tile
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
Floor Tile (Ceramic Mosaic)
THE CAMBRIDGE TILE MFG. CO. *(35)
Floor Treatment & Maintenance
HILLYARD SALES CO. (Western)
San Francisco: 470 Alabama St., MA 1-7766
Los Angeles: 923 E. 3rd, TR 8282
Seattle: 3440 E. Marginal Way
Diversified (Magnesite, Asphalt Tile, Composition, Etc.)
LE ROY OLSON CO.
San Francisco 10: 3070 - 17th St., HE 1-1088
Sleepers (composition)
LE ROY OLSON CO.

**GLASS (16)**
W. P. FULLER COMPANY
San Francisco: 301 Mission St., EX 2-7151
Los Angeles, Calif.
Portland, Ore.

**GRANITE (16a)**
PACIFIC CUT STONE & GRANITE CO.
414 South Marengo Ave., Alhambra, Calif.

**HEATING (17)**
S. T. JOHNSON CO.
Oakland 8: 940 Arlington Ave., OL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia 8, Pa.: 401 N. Broad St.
SCOTT COMPANY
San Francisco: 243 Minna St., YU 2-0400
Oakland: 113 - 10th St., GL 1-1937
San Jose, Calif.
Los Angeles, Calif.
UTILITY APPLIANCE CORP. *(2)
Electric Heaters
WESIX ELECTRIC HEATER CO.
San Francisco 5: 390 First St., GA 1-2211
Los Angeles: 520 W. 7th St., MI 8096
Portland: Terminal Sales Bldg., BE 2050
Seattle: Securities Bldg., SE 5028
Spokane: Realty Bldg., MAdison 6175
San Diego: 514 Spreckels Bldg., BEImont 4-6082
Designer of Heating
THOMAS B. HUNTER
San Francisco 4: 41 Sutter St., GA 1-1164

**INSULATION AND WALL BOARD (18)**
LUMBER MANUFACTURING CO.
San Francisco: 225 Industrial Ave., JU 7-1760
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY *(9)
WESTERN ASBESTOS COMPANY
San Francisco: 675 Townsend St., KL 2-3868
Oakland: 251 Fifth Avenue, GL 1-2345
Stockton: 733 S. Van Buren, ST 4-9421
Sacramento 1331 - T St., HU 1-0125
Fresno: 434 - P St., FR 2-1600

**IRON—Ornamental (10)**
MICHEL & PFEFFER IRON WORKS, INC. *(13)

**INTERCEPTING DEVICES (10a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**LANDSCAPING (20)**
Landscape Contractors
HENRY C. SOTO CORP.
Los Angeles: 13,000 S. Avalon Blvd., ME 4-6617

**LIGHTING FIXTURES (21)**
SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER (22)**
Shingles
LUMBER MANUFACTURING CO. *(18)

**METAL GRATING (22a)**
KLEMP METAL GRATING CORPN.
6601 S. Melvina, Chicago 38, Ill., POrtsmouth 7-6760

**METAL FRAMING (22b)**
UNISTRUT SALES OF NORTHERN CALIFORNIA
Berkeley: 1000 Ashby Ave., TH 3-4964

**MARBLE (23)**
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles 4: 3522 Council St., DU 2-6339

**MASONRY (23a)**
GENERAL CONCRETE PRODUCTS, INC.
Van Nuys, 15025 Oxnard St., ST 5-1126 & ST 7-3289

**METAL LATH EXPANDED (24)**
PACIFIC COAST AGGREGATES, INC. *(11)

**MILLWORK (25)**
FINK & SCHINDLER, THE; CO: *(9b)
LUMBER MANUFACTURING COMPANY *(18)
MULLEN MANUFACTURING COMPANY
San Francisco: 60-80 Rausch St., UN 1-5815
PACIFIC MANUFACTURING COMPANY
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, SC 607
Los Angeles, 6820 McKinley Ave., TH 4196

**PAINTING (26)**
W. P. FULLER COMPANY *(16)
Paint

**PLASTER (27)**
Interiors - Metal Lath & Trim
PACIFIC COAST AGGREGATES, INC. *(11)
Exteriors
PACIFIC PORTLAND CEMENT COMPANY *(28)

**PLASTIC CEMENT (28)**
IDEAL CEMENT COMPANY
San Francisco: 310 Sansome St., GA 1-4100

**PLUMBING (29)**
THE HALSEY TAYLOR COMPANY
Redlands, Calif.
Warren, Ohio
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
THE SCOTT COMPANY *(17)
HAWS DRINKING FAUCET COMPANY
Berkeley 10: 1435 Fourth St., LA 5-3341
CONTINENTAL WATER HEATER COMPANY
Los Angeles 31: 1801 Pasadena Ave., CA 6178
SECURITY VALVE COMPANY
Los Angeles 31: 410 San Fernando Rd., CA 6191

**PUMPING MACHINERY (29)**
SIMONDS MACHINERY COMPANY
San Francisco: 816 Folsom St., DO 2-6794
Los Angeles: 455 East 4th St., MU 8322

**PRESS (Punch) (29a)**
ALVA F. ALLEN
Clinton, Missouri

**RANGE-REFRIGERATOR (29a)**
Combinations
GENERAL AIR CONDITIONING CORPN.
Los Angeles 23: 4542 E. Dunham St.
San Francisco: 1355 Market St., KL 2-2311, Ext. 104

**RESILIENT TILE (30)**
LE ROY OLSON CO. *(15)

**ROOF TRUSSES (30a)**
EASY BOW ENGINEERING & RESEARCH CO.
13th & Wood St., Oakland, Cal., GLencourt 2-0805

**SAFES (30a)**
HERMANN SAFE CO.
San Francisco, 1699 Market St., UN 1-6644

**SEWER PIPE (31)**
GLADDING, McBEAN & CO *(3)

**SHADES (31a)**
SHADES, Inc.

**SHEET METAL (32)**
Windows
DETROIT STEEL PRODUCTS COMPANY
Oakland 8: 1310 - 63rd St., OL 2-8826
San Francisco: Russ Building, DO 2-0890
MICHEL & PFEFFER IRON WORKS, INC. *(13)
PACIFIC COAST AGGEGATES, INC. *(11)
Fire Doors
DETROIT STEEL PRODUCTS COMPANY
Skylights
DETROIT STEEL PRODUCTS COMPANY

**SOUND EQUIPMENT (32a)**
STROMBERG-CARLSON CO.
Burlingame, 1805 Rollins Rd., OX 7-3630
Los Angeles, 5415 York Blvd., CL 7-3939

**STEEL—STRUCTURAL (33)**
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland: 2345 N. W. Nicolai, BE 7261
Seattle 1331 3rd Ave. Bldg., MA 1972
Salt Lake City: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland: 18th & Campbell Sts., GL 1-1767
JUDSON PACIFIC-MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 N. Montgomery St., GA 1-0977
Los Angeles: Edison Building
Seattle: White-Henry-Stuart Building
Salt Lake City: Walker Bank Building
Denver: Continental Oil Building
SAN JOSE STEEL COMPANY
San Jose 195 North Thirtieth St., CO 4184

**STEEL—REINFORCING (34)**
REPUBLIC STEEL CORP. *(33)
HERRICK IRON WORKS *(33)
SAN JOSE STEEL CO. *(33)
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP. *(33)

**SWIMMING POOL FITTINGS (34a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**CLAY TILE (35)**
THE CAMBRIDGE TILE MFG. CO.
Redwood City: 132 Wilson St.
Los Angeles 19: 1335 S. La Brea, WE 3-7800
GLADDING, McMEAN & CO. *(13)
KRAFTILE
Niles, Calif.: NIles 3611
San Francisco 5: 50 Hawthorne St., DO 2-3780
Los Angeles 13: 406 South Main St., MU 7241

**TIMBER—REINFORCING (36)**
Trusses
Tacoma, Wash.
WYERHAEUSER SALES CO.
St. Paul, Minn.
Newark, N. J.
Treated Timber
J. H. BAXTER CO.
San Francisco 4: 200 Bush St., YU 2-0200
Los Angeles 5: 3450 Wilshire Blvd., DU 8-9591

**TRUCKING (36a)**
PASSETTI TRUCKING CO.
San Francisco 3: 264 Clementina St., GA 1-5297

**WALL TILE (37)**
THE CAMBRIDGE TILE MFG. CO. *(35)
GLADDING, McBEAN & CO. *(13)
KRAFTILE COMPANY *(35)

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C. 681 E. Hastings St.
TECON PRODUCTS, INC.
Seattle 4, Washington 304 So. Alaskan Way

**WINDOWS STEEL (38)**
DETROIT STEEL PRODUCTS CO. *(32)
MICHEL & PFEFFER IRON WORKS
212 Shaw Road, So. San Francisco, PLaza 5-8983
PACIFIC COAST AGGREGATES, INC. *(11)

**GENERAL CONTRACTORS (39)**
BARRETT CONSTRUCTION CO.
1800 Evans Ave., AT 8-1471
Los Angeles: 234 W. 37th Place, AD 3-8161
J. BETTANCOURT
San Bruno: 1015 San Mateo Ave., JUno 8-7525
DINWIDDIE CONSTRUCTION COMPANY
San Francisco: Crocker Building, YU 6-2718
CLINTON CONSTRUCTION COMPANY
San Francisco: 923 Folsom St., SU 1-3440
MATTOCK CONSTRUCTION COMPANY
San Francisco: 604 Mission St., GA 1-5516
E. H. MOORE & SONS
San Francisco: 693 Mission St., GA 1-8579
PARKER, STEFFENS & PEARCE
San Francisco: 135 So. Park, EX 2-6639

**TESTING LABORATORIES (ENGINEERS & CHEMISTS (40)**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

# CONSTRUCTION INDUSTRY WAGE RATES

**The following has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds. These supplements are shown in table 2. The amounts shown are payable directly to the employee, except where noted. In addition, the collective bargaining agreements may require employr payments on behalf of the employee to funds for health and welfare, vacations, pensions, etc.

## Table 2—Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds California Union Contracts, Construction Industry (1956 Revision)

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | 9cw | 9cw | 9cw | 9cw | 9cw | 9cw | 9cw | 9cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| BOILERMAKER | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| BRICKLAYER | 10cw | | | | | | | 10cw | | | | | |
| BRICKLAYER, HODCARRIER | 7½cw | 10cw | 10cw | | 10cw | 10cw | | 10cw | | | 7½cw | | |
| CARPENTER | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| CEMENT FINISHER | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| CONCRETE MIXER—Skip type (1-yd.) | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| ELECTRICIAN | 7½cw | 7½cw | 7½cw | | 7½cw | 7½cw | | 7½cw | | | 10cw | | 7½cw |
| | 1%p; 4%v | 1%p; 4%v | 1%p; 4%v | 1%p | 1%p | 1%p; 4%v | 1%p | 1%p; 4%v | 1%p | | 1%p | 1%p | 1%p |
| ELEVATOR CONSTRUCTOR | 6cw | 6cw | 6cw | 6cw | 6cw | 6cw | 6cw | 6cw | 6½cw | 6½cw | 6½cw | 6½cw | 6½cw |
| ENGINEER: MATERIAL HOIST | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | | | | | |
| GLAZIER | 7½cw | 7½cw | 7½cw | | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | | 7½cw | | |
| | 8½cv | 8½cv | 8½cv | | 5cv | 5cv | 8½cv | 8½cv | | | | | |
| IRONWORKER: ORNAMENTAL | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| REINF. STEEL | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| STRUCTURAL STEEL | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORERS: BUILDING | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| CONCRETE | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | | | | | |
| LATHER | 7½cw | | 7½cw | | 10cw | 10cw | | | $1 dayw | 50c dayw | 10cw | | 7½cw |
| MARBLE SETTER | | | | | | | | | | | | | |
| MOSAIC & TERRAZZO | 7½cw | | | | | | | | | | | | |
| PAINTER—BRUSH | 8½cw | 8½cw | 8½cw | 8cw IcADM | 7½cw | 8½cw | 8½cw | 10cw | 8½cw | | 8cw | 10cw | 10cw |
| PAINTER—SPRAY | 8½cw | 8½cw | 8½cw | 8cw IcADM | 7½cw | 8½cw | 8½cw | 10cw | 8½cw | | 8cw | 10cw | 10cw |
| PILEDRIVER—OPERATOR | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| PLASTERER | 10cw | 11cw | 11cw | 7½cw | 10cw | 10cw | 7½cw | 60c dayw | 12½cw | | 10cw | | 7½cw |
| PLASTERER, HODCARRIER | 7½cw | 11cw | 11cw | 7½cw | 10cw | 10cw | 7½cw | 60c dayw ½%PROM | 7½cw | | 10cw | | 7½cw |
| PLUMBER | 11cw; 2½cJIB 12½cv; 10cP | 10cw 12½cv | 10cw 1½cA | 10cw 10cP; 1cA | 10cw 12½cv | 10cw 10cP; 1cA | 10cw | 10cw 1cA | | | 10cw | 10cw | 10cw |
| ROOFER | 7½cw 7½cv | 7½cw 5cv | 7½cw 5cv | 7½cw 5cv | 7½cw 5cv | 7½cw | 7½cw 5cv | 7½cw | 8½cw | 10cv | | 8½cw 10cv | 7½cw 10cv |
| SHEET METAL WORKER | 7½cw | 7½cw 3¼cv | 7½cw 3¼cv | 7½cw 2%v | 7½cw | 7½cw | 7½cw 7½cv | 7½cw 4%v | 8½cw 6½cv | 8½cw 6½cv | 8½cw | 8½cw | 8½cw 9cv |
| SPRINKLER FITTER | 7½cw | 7½cw | 7½cw | | | | 7½cw | 7½cw | 7½cw | | | | |
| STEAMFITTERS | 11cw; 10cP 12½cv; 2½cJIB | 10cw 1cA | 10cw 1cA | 10cw 10cP; 1cA | 10cw 12½cv | 10cw 10cP; 1cA | 10cw | 10cw 1cA | | | 10cw | 10cw | 10cw |
| TRACTOR OPERATOR | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| TRUCK DRIVER—Dump trucks, under 4 yds. | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| TILE SETTER | 7½cw | 7½cw | 7½cw | | | | 7½cw | 7½cw | 2½%w ¼%PROM | | | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research from the latest available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract. Payments made directly to the employee and earmarked for vacations, health and welfare, etc., are not shown above but are included with the hourly wage rates shown in Table 1.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**


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## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**SHERIFF'S SUB-STATION,** Lafayette Contra Costa County. County of Contra Costa, Martinez, owner. 1-Story wood frame, concrete block, tar and gravel roof —$31,427. ARCHITECT: Jack Butcher & Associates, 61 Moraga Highway, Orinda. GENERAL CONTRACTOR: Ernest Hollman, 1182 Almendra Ct., Concord.

**RECREATION CENTER,** Balboa Park, San Francisco. Recreation & Park Dept., City of San Francisco, owner. New recreation center facilities for the Balboa Park area—$422,300. GENERAL CONTRACTOR: Engstrom & Nourse, 212 5th St., San Francisco.

**CAFETERIA ALTERATIONS,** City College, Santa Monica, Los Angeles County. Associated Student Body, Santa Monica City College, owner. Alterations and an addition to cafeteria: composition roof, concrete slab, wood and aluminum sliding sash, glass louvres, aluminum sliding doors. plaster, plumbing, electrical, skylights, concrete block garden walls; 3,500 sq. ft. ARCHITECT: Kenneth E. Anderson, 11771 San Vicente Blvd., West Los Angeles. GENERAL CONTRACTOR: Herbert E. Goldsworthy, 409 Santa Monica Blvd., Santa Monica.

**POLICE HEADQUARTERS BLDG.,** Redwood City, San Mateo County. City of Redwood City, owner. 2-Story masonry, concrete floors, frame partitions, wood roof — $199,885. ARCHITECT: Bernard G. Nobler, Brewster-Warren Bldg., Redwood City. GENERAL CONTRACTOR: Belle-Haven Realty Co., 1420 E. 3rd Ave., San Mateo.

**AUTOSHOWROOM & GARAGE,** Salinas, Monterey County. Cochran Motors, owner. 1-Story reinforced concrete tilt-up, wood roof, considerable glass, concrete slab floors; 20,000 sq. ft. area—$164,564. ARCHITECT: Cline, Zerkle & Agee, 1810 6th St., Berkeley. GENERAL CONTRACTOR: Ekelin & Small, 273 E. Alisal, Salinas.

**CONVERT GARAGE TO RESTAURANT,** Long Beach, Los Angeles County. Lafayette Hotel Corpn., Long Beach, owner. Convert public garage into a restaurant; plumbing, electric work, heating and ventilating, plaster and panel interior, ceramic tile work, store front, stone veneer: 15,000 sq. ft. area — $20,000. ENGINEER: Francis Gentry, Insurance Exchange Bldg., Long Beach. GENERAL CONTRACTOR: J. E. Simpkins, 3209 Studebaker Rd., Long Beach.

**CORPORATION YARD BLDG.,** Sacramento, City of Sacramento, owner. Group of prefabricated steel buildings; corrugated, galvanized, steel exterior, aluminum roof — $522,058. ARCHITECT: Barovetto & Thomas, 718 Alhambra Blvd., Sacramento. GENERAL CONTRACTOR: Cal-Central Const. Co., 7500 14th Ave., Sacramento.

**CHURCH & CLASSROOM,** St. Anthony Parish, El Segundo, Los Angeles County. Roman Catholic Archbishop of Los Angeles, Los Angeles, owner. Church and separate classroom buildings; church capacity 700 persons; educational building will contain 4 classrooms; frame and stucco construction—$159,600. ARCHITECT: George Adams, 2439 Hyperion Ave., Los Angeles. GENERAL CONTRACTOR: Alex Sutherland, 739 Oakglade, Monrovia.

**BOYS GYMNASIUM,** Lemoore High School, Lemoore, Tulare County. Lemoore Union High School District, Lemoore, owner. New all purpose boys gymnasium, showers, locker room, etc.—$423,537. ARCHITECT: Alastair Simpson, 64 N. Fulton, Fresno. GENERAL CONTRACTOR: Bob Long Const. Co., P. O. Box 1623 Fresno.

**FURNITURE FACTORY,** Centerville, Alameda County. Kroehler Mfg. Co., Napeville, Illinois, owner. 1-Story structural steel frame, brick walls, steel roof deck, built-up roofing, concrete floors, automatic sprinkler system; 175,000 sq. ft. of area — $1,400,000. STRUCTURAL ENGINEER: John M. Sardis, 64 Pine St., San Francisco. GENERAL CONTRACTOR: Barrett Const. Co., 1800 Evans Ave., San Francisco.

**OFFICE BLDG.,** Los Angeles. The Texas Company, Los Angeles, owner. 13-Story, office building at Wilshire Blvd. and Catalina Streets, Los Angeles; reinforced concrete construction, structural


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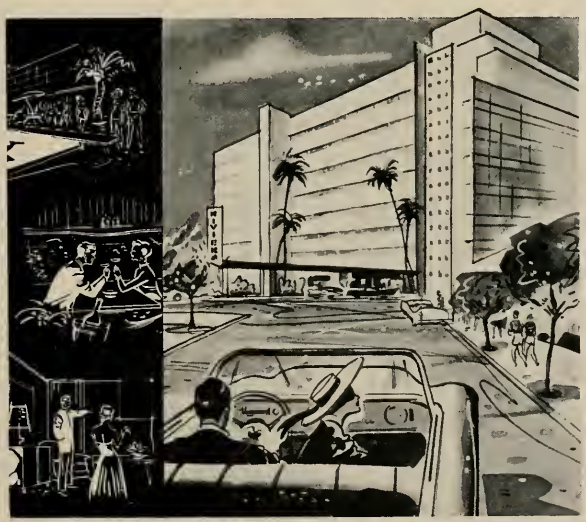
RIVIERA
HOTEL LAS VEGAS

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steel frame, elevators, interior plaster, acoustical work, resilient flooring, metal sash, heating and ventilating, plate glass, plumbing and electrical work. ARCHITECT: Welton Becket & Associates, 5657 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Del E. Webb Company, 5101 San Fernando Rd., West Los Angeles.

**PRESBYTERIAN CHURCH,** Visalia, Tulare County. First Presbyterian Church of Visalia, owner. Brick and structural steel frame — $253,000. ARCHITECT: Robt. C. Kaestner, 210 N. Encina, Visalia. GENERAL CONTRACTOR: Lewis C. Nelson & Sons, 2915 McCall, Selma.

**HOSPITAL REMODEL,** St. Joseph's, Stockton, San Joaquin County. St. Joseph's Hospital, Stockton, owner. Interior remodel with alterations to the maternity ward; installation of new air conditioning system—$63,390. ARCHITECT: Starks, Jozen & Nachts, Native Sons Bldg., Stockton. GENERAL CONTRACTOR: Shepherd & Greene, American Trust Bldg., Stockton.

**HIGH SCHOOL ADD'N.,** Garden Grove, Los Angeles County. Garden Grove Union High School District, Garden Grove, owner. Addition of a snack-bar building, agriculture building, library building and science unit at the Rancho Alamitos High School—$290,800. ARCHITECT: James H. Van Dyke, 2334 Beverly Blvd., Los Angeles, and ENGINEER: S. B. Barnes, 2334 Beverly Blvd., Los Angeles. GENERAL CONTRACTOR: Noyes Roach Co., 5017 Telegraph Rd., P. O. Box 6877, Los Angeles.

**SHOE STORE BLDG.,** San Jose, Santa Clara County. Sommer & Kauffman, San Francisco, owner. Remodel interior and construct new front of building in the Valley Fair Shopping Center at San Jose. ARCHITECT: Mario Gaidano, 605 Market St., San Francisco. GENERAL CONTRACTOR: Rothschild, Raffin & Werick, 274 Brannan St., San Francisco.

**CHAPEL & CLASSROOM,** Baptist Church, Santa Rosa, Sonoma County. First Baptist Church of Santa Rosa, Santa Rosa, owner. Frame and stucco construction, laminated wood arches — $75,000. ARCHITECT: Alfred W. Johnson, 165 Jessie St., San Francisco. GENERAL CONTRACTOR: Paul V. Wright, 1826 Morley Way, Santa Rosa.

**JOCKEY BLDG.,** Fairgrounds, Fresno. 21st Agricultural Association, Fresno, owner. Construction of a new jockey building at the County Fairgrounds in Fresno — $21,200. GENERAL CONTRACTOR: S. A. Branch, 4819 E. Nevada, Fresno.

**BANK BLDG.,** Freedom, Santa Cruz county. Pajaro Valley National Bank, Watsonville, owner. 1-Story brick, frame and stucco construction; structural steel beams; 4500 sq. ft. area $101,300. DESIGNER: Cunneen Co., 1052 W. 6th St., Los Angeles. GENERAL CONTRACTOR: Lloyd Hamilton, 23 North Drive, Watsonville.

**EGG PROCESSING PLANT,** San Leandro, Alameda county. Poultry Producers of Central California, San Francisco, owner. Reinforced concrete, 230,000 sq. ft. of area. ARCHITECT: J. Francis Ward, 215 Leidesdorf St., San Francisco. GENERAL CONTRACTOR: Swinerton & Walberg, 1723 Webster St., Oakland.

**OFFICE & SALESROOM,** Woodland, Yolo county. Woodland Lumber Company, Woodland, owner. 1-Story reinforced concrete tilt-up, wood roof trusses, wood roof, air conditioning system—$43,000. ARCHITECT: Raymond R. Franceschi, 2015 J. St., Sacramento. GENERAL CONTRACTOR: Clyde Perkins Const. Co., 8th & F. Sts., Broderick.

**HESSE HALL ADD'N.,** UC Campus, Berkeley, Alameda county. Board of Regents, University of California, Berkeley, owner. 4-Story 172 x 54 ft. reinforced concrete, structural steel frame, lightweight steel and glass curtain walls, 3 storys connecting corridors; facilities for fluid mechanical laboratories—$782,200. ARCHITECT: Mitchell Van Bourg, Hotel Claremont, Berkeley. GENERAL CONTRACTOR: John E. Branagh & Son, 42 La Salle Avenue, Piedmont.

**WAREHOUSE AND OFFICES,** Los Angeles. United Studios, Inc., Los Angeles, owner. Brick masonry warehouse and offices, 20,000 sq. ft. area, composition and gravel roof, tapered steel girders, concrete slab and asphalt tile floors, plaster walls, acoustic tile ceilings, plumbing, electrical, steel pipe columns, metal louvers, concrete loading dock, metal rolling doors, steel sash, asphalt paving. ARCHITECT: Howard W. Frank, 9019 Beverly Blvd., Los Angeles.

**ELEMENTARY SCHOOL,** Telegraph, Santa Fe Springs, Los Angeles county. Little Lake School District, Santa Fe Springs, owner. New Telegraph Elementary School, 16 classrooms, kindergarten, home making, administration unit, multi-purpose, shop, arts and crafts; reinforced masonry construction, structural steel, composition roofing, slab and asphalt tile floors, metal sash, metal toilet partitions, sun louvers, electrical, heating and ventilating, insulation, paving—$646,408. ARCHITECTS: Flewelling & Moody, 766 Colorado Blvd., Los Angeles. GENERAL CONTRACTOR: Secrest & Fish, 1909 W. Whittier Blvd., Whittier.

**OFFICE-SHOP ADD'N.,** West Los Angeles. Del E. Webb Const. Co., West Los Angeles, owner. Second story, brick addition to present office and shop building; 40x76 ft., composition roof, asphalt tile floor, rubber tile stairs, interior plaster, acoustic tile ceilings, air conditioning, mechanical equipment, room on roof, metal toilet partitions, insulation, tapered steel girders, pipe columns, steel projected sash — $40,000. ARCHITECT: Merrill W. Baird, 110 W. Broadway, Glendale. GENERAL CONTRACTOR: Del E. Webb Const. Co., 5101 San Fernando Rd., West Los Angeles.

**WASHOE MEDICAL CENTER,** Reno, Nevada. Washoe Medical Center, Board of Trustees, Reno, owner. 2-Story structural steel frame, reinforced concrete tilt-up construction, terrazzo and vinyl tile floors: 21,000 sq. ft. of area—$516,025. ARCHITECT: Vhay & Grow, 131 W. 2nd St., Reno. GENERAL CONTRACTOR: Macomber-Brunzell, 111 Mill St., Reno.

**CHURCH,** Hayward, Alameda county. Westminster Presbyterian Church, Walnut Creek, owner. 1-Story frame, board and batten exterior; 200 seating capacity—$60,442. ARCHITECT: Floyd B. Comstock & Associates, 1620 Cypress St., Walnut Creek. GENERAL CONTRACTOR: Wallace Webb & Son, 1772 "B" St., Hayward.

**SUPER-MARKET,** South San Francisco, San Mateo county. Quality Foods, Inc., San Francisco, owner. 1-Story reinforced concrete tilt-up walls, wood roof trusses, wood roof, concrete slab floor; 35,000 sq. ft. of area—$347,444. ARCHITECT: Ralph B. Berger, 709 Mission St., San Francisco. GENERAL CONTRACTOR: Associated Construction & Engineers Co., Geneva Ave., San Francisco.


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# IN THE NEWS

**PROPOSED NEW PUBLIC LIBRARY**

Architect Francis J. McCarthy, 693 Mission St., San Francisco, is preparing drawings for construction of a new Public Library building to be built in San Leandro for the City of San Leandro.

The new building will include the usual library facilities, meeting rooms, and an auditorium. Estimated cost of the project is $1,000,000.

**NEW HALL OF JUSTICE**

Architect Frederich L. R. Confer, 366 40th St., Oakland, is working on plans and specifications for construction of a new $2,700,000 Hall of Justice building to be built in downtown Oakland for the City of Oakland.

New facilities will include police department, jail, and municipal courts.

**CHAPEL AND CLASSROOMS**

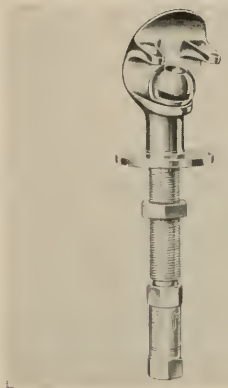
Architect Bolton White & Jack Hermann, 75 Castle St., San Francisco, is preparing plans and specifications for construction of a frame and stucco chapel and classroom building for the San Ramon Valley Congregational Church in Danville, Alameda county.

**SAN RAFAEL BUILDS NEW FIRE HOUSE**

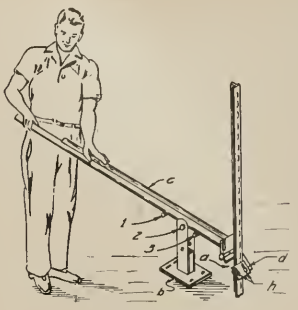
Architect Eugene E. Crawford, 920 5th Avenue, San Rafael, is completing plans for construction of a 1-story frame and stucco Fire House at 3rd and Union in San Rafael for the City of San Rafael.

**LATEST HAWS DRINKING BUBBLER IS IDEAL**

The latest Haws drinking bubbler, Model 127, is an ideal fixture for fountains where change or replacement to full automatic stream control is desired.



This new unit contains a flow regulator valve that compensates for outside water pressures varying from 10 P.S.I. up to 125 P.S.I. It automatically delivers an excellent bubbler stream throughout the full range of pressures, without adjustment. Additional features includes a generous mounting flange and an extra long

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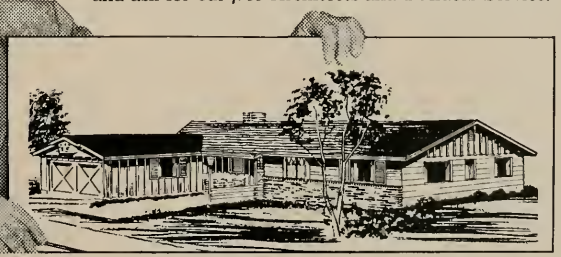
Homes built by the Harlow Construction Company have telephone outlets located for maximum convenience—in rooms where the family spends a lot of time. Concealed telephone wiring is another feature that adds to the livability and value of Harlow homes.

To successful builders like Mr. Harlow, who are setting living standards in the Pacific West, complete telephone planning is as basic as adequate electrical wiring. Pacific Telephone is always ready to help you plan built-in telephone facilities. Just call us and ask for our *free* Architects and Builders Service.



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threaded shank to provide wide latitude for installation on practically every type of fountain. All parts are chrome plated brass. Mfg. Haws Drinking Faucet Co., 4th & Page St., Berkeley 10, Calif.

### ASSOCIATED GENERAL CONTRACTORS ANNOUNCE STAFF CHANGES

James M. Sprouse has been named manager of the Highway Contractors' Division of The Associated General Contractors of America, and will be responsible for the association's activities in the expanded highway construction program. Francis E. Twiss, formerly director of engineering for the International Road Federation, has been appointed engineer advisor: Donald A. Buzzell will head the Heavy Construction and Railroad Contractors Division; and Archie N. Carter, formerly manager of the Highway Contractors' Division, has resigned to join with James A. Linsey, Jr., to form the firm of Lindsay, Carter & Associates, Consulting Engineers and Land Surveyors with headquarters in Excelsior, Minn.

Staff changes in the national contractors organization were announced by Executive Director James D. Marshall.

### NEW FASCO MODEL VENTILATOR

The new model 650 is something unique in bathroom ventilators. Only 5" high, it fits inside 6" joists without protruding, leaving ample space for insulation blankets between joists.

Easy to handle and installation costs are kept at a bare minimum. Power supply is connected from wall switch to self-contained box, motor blower unit is inserted and locked in place with two wing nuts, all rubber mounted. The decorative grill, designed in contemporary styling with circular louvers, is applied with a finger tight knob.

Unit is ideal for remodeling as well as new construction; is UL approved and meets all FHA requirements for inside bathroom vents. 5-Year unconditional guarantee. Write FASCO Industries, Inc., Rochester, N. Y.

### "MR. MAC" OF KRAFTILE HAS RETIRED

J. A. McDonald, "Mr. Mac" as he is respectfully and affectionately known in the Kraftile organization, Niles, California, and Joe Mesquite have recently been retired under the Kraftile Company pension plan which became effective on August 25, 1956.

Mesquite was "No. 1" on Kraftile's payroll, starting his career with the company in 1925, while McDonald joined the organization 12½ years ago.

McDonald will be succeeded as office manager by W. M. Schulte, although he will continue to serve the firm in an advisory capacity and as a member of the board of directors.

### CONTRACTOR MOVES OFFICES

The general offices of Morris Daley, General Contractors, have been moved into a new location at 1145 California Drive, Burlingame, according to a recent announcement.

### SPECIAL TRAINING BUILDING PLANNED

Architects Killingsworth, Brady & Smith, 3833 Long Beach Blvd., Long Beach, are preparing plans for construction of a special training building for retarded children on a 5-acre site in Long Beach, for the Long Beach Board of Education.

Estimated cost of the facility is $200,000.

### EMERYVILLE WAREHOUSE AND OFFICE BLDG.

Structural Engineer Hugh M. O'Neil Co., 610 16th St., Oakland, is preparing plans and specifications for construction of a 1-story, 128,000 sq. ft. warehouse and a 7500 sq. ft. office building for the Rawson Drug and Sundry Company of Emeryville, to cost $650,000.

The new facilities will be of reinforced, tilt-up construction, wood roof trusses, wood roof, aluminum and steel sash, automatic sprinkler system, air conditioning in office.

### BOWLING ALLEY FOR ANAHEIM

The firm of Ramberg, Hippe & Lowrey, D. A. Ramberg, architect, 2015 N. Main St., Santa Ana, is completing drawings for construction of the La Palma


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Lanes Bowling Alley in Anaheim for the Orange Crest Corpn.

The building will contain 33,000 sq. ft. area; 32 alleys, paved parking area; concrete slab construction, composition roof, steel trusses, acoustical tile ceilings, air conditioning, cocktail lounge and restaurant, wall-to-wall carpeting, terrazzo, aluminum entry, fluorescent lighting, restroom facilities. Estimated cost is $600,000.

### CHARLES P. McMAHON JOINS NAHB STAFF

Charles P. McMahon, veteran newspaperman, has joined the Public Relations department of the National Association of Home Builders as Assistant Public Relations Director and as Information Director, according to an announcement by John M. Dickerman, executive director.

McMahon succeeds Oliver W. DeWolf who has been transferred to the association's executive office. For the past 17 years he has been with the United Press Association in the mid-west and east.

### OLD PEOPLES HOME PLANNED

Architect Albert W. Kahl, 1120 7th Ave., San Mateo, is preparing plans for the Board of Supervisors of Tehama county, for construction of a old people's home building on the County Hospital grounds in Red Bluff.

The new famility will be of 1-story concrete block and frame construction and will cost an estimated $60,000.

### CHICO STATE COLLEGE GETS NEW CLASSROOMS

The Chico State College at Chico will get a new 3-story reinforced concrete, with some brick veneer, classroom building, when plans being prepared by the California State Division of Architecture are completed.

The new building, estimated to cost $854,000, will comprise facilities for social science, home economics, business, education, laboratories, and offices, according to Anson Boyd, State Architect.

### LOS ANGELES MEDICAL CENTER ADDITION

The architectural firm of Welton Becket, FAIA, and Associates, 5657 Wilshire Blvd., Los Angeles, is preparing plans and specifications for construction of a $6,000,000 neuropsychiatric unit as an addition to the University of California at Los Angeles Medical Center.

The new unit will be six stories in height and will house a coordinated mental hygiene program with the State Department of Mental Hygiene. It will include a 200-bed hospital and outpatient clinic and facilities for undergraduate training for the UCLA Medical School. A large research wing will physically join existing research facilities of the Medical School with the new unit.

### REVOLUTIONARY NEW PAINT GUN

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### AUTO SALES AND SERVICE

The architectural firm of Butner, Holm & Waterman, 321 Webster St., Monterey, is working on plans and specifications for construction of alterations to the auto sales and service building at 665 Munras St., Monterey.

Both the interior and exterior of the building will be remodeled at an estimated cost of $45,000.

### SHELL DEVELOPMENT TO EXPAND MODESTO PLANT

The Shell Development Company recently announced plans for expansion of its Modesto agricultural research center, and according to Dr. H. Gershinowitz,


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president, improvement plans include new laboratories and office buildings to provide additional facilities for personnel being transferred from Denver.

Construction is scheduled for completion in the fall of 1957 and about one million dollars will be spent in the improvement program.

Architects for the work are Austin, Field & Fry of Los Angeles.

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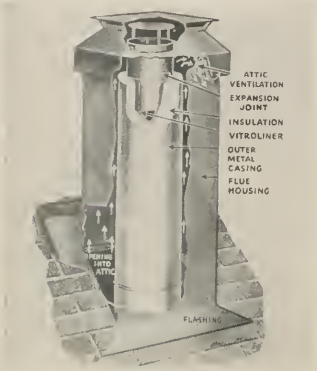


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### MT. VIEW PHONE EXCHANGE

Architect Clarence O. Peterson, 116 New Montgomery St., San Francisco, is completing drawings for construction of a new telephone exchange building in Mt. View for the Pacific Telephone & Telegraph Company.

The new exchange will be of 1-story reinforced concrete construction, 75x75 feet in area.


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# The Lunatic Wept

ABRAHAM SIMMONS couldn't feel the frost that lined his tiny stone cage, or taste the swill they fed him, or chafe at his iron chains—so his keepers said. He was a madman.

But then, when his visitor, little Miss Dix, spoke softly, kindly, to him, why did he weep?

Dorothea Lynde Dix knew why. And her knowledge kept her fighting all her life to get the mentally ill away from pits and cages, whips and chains, and into hospitals.

In nearly 40 years, she paused only once—to render heroic service as superintendent of nurses in the Civil War. Then again she began investigating, writing, fund-raising, politicking, until this frail ex-school teacher had pushed a whole country into one of the finest reforms in its history: the sane treatment of the insane.

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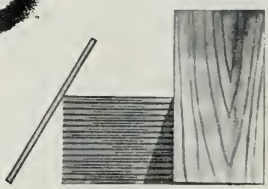
"Can't get this dad-burned sliver o' wood to burn," rumbled Paul Bunyan to Babe, the Blue Ox. A mountain top trembled and fell, damming up a river. "Babe, what the cuss do you suppose them Baxter folks done to this here piece o' plywood? ✻ She's dry—but she JEST DON'T BURN!"



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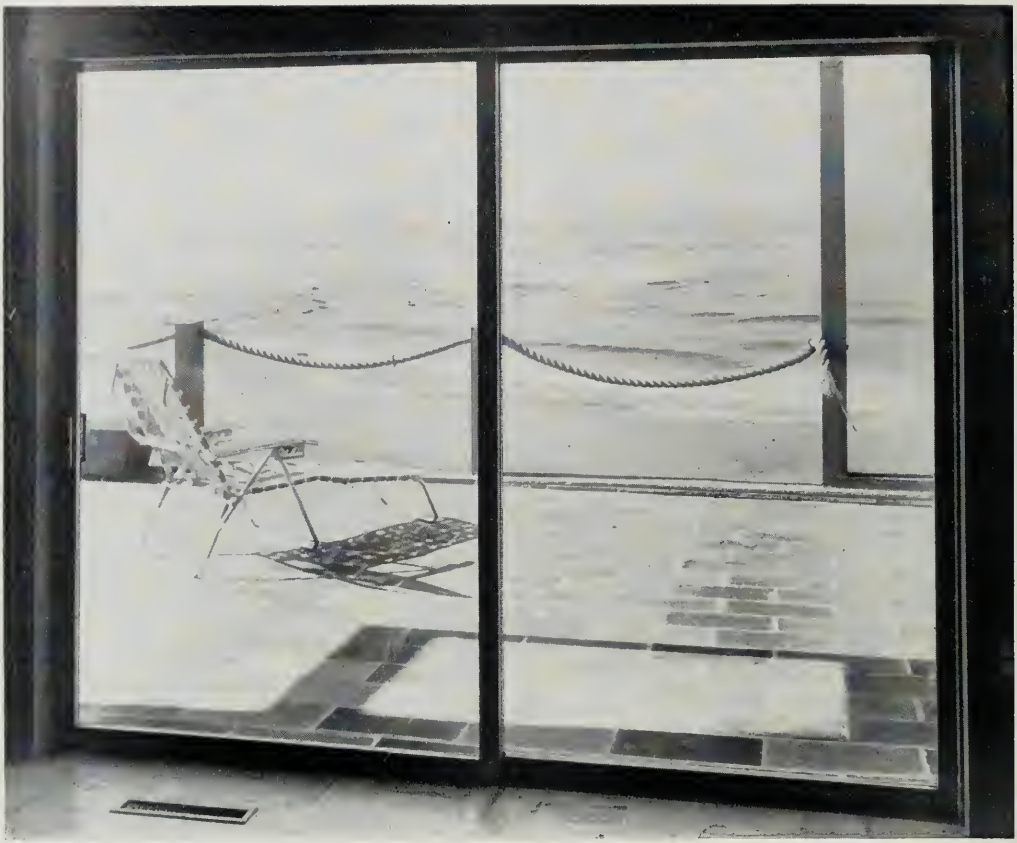

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# ARCHITECT AND ENGINEER

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# . EDITORIAL NOTES .

## AIR CONDITIONING DEFINED

Anyone connected with the construction industry, and more particularly those charged with the responsibility of air-conditioning in buildings of all types, will be interested in the following bit of information:

"As a means of clarifying the confused situation as to the proper definition of air conditioning, a new and simplified definition has been prepared and adopted by the American Society of Heating and Air-conditioning Engineers."

The definition, recently announced by John W. James, president of the ASHAE, reads—"Air Conditioning is the process of treating air so as to control its temperature, humidity, cleanliness and distribution to meet the requirements of the conditioned space."

Let's have no more confusion.

* * *

*". . . We can change the whole character of urban or suburban areas by zoning acts."—Leon Chatelain, Jr., Pres. American Institute of Architects.*

* * *

## SOMETHING TO THINK ABOUT

While some of the architectural profession in California, and perhaps in other states, is thinking in terms of amending present laws to permit the use of architects in private practice in connection with the design of governmental buildings wherein funds for construction are derived from taxes paid by the public, it might be well to give serious thought to the State of California-Architectural Division as it now exists.

State Architect Anson Boyd recently announced that the California Division of Architecture "expects to start construction on nearly $112,000,000 of state building projects during 1957," and that "Plans and specifications are nearing completion and schedules for bidding have been established—."

In the first place, we question whether there should be any Division of Architecture as a functional design and specifications activity in California, or any other state, where there is adequate private architectural talent available. The state has no more business being in the practice of architecture than it has in competing with individuals in the medical, legal, grocery, dry-goods, or any other enterprise that persons engage in as a means of earning a living.

There may be some argument in favor of a governmental agency that could serve as a "watch-dog" over expenditures of tax monies going into governmental buildings, but, the functional processes of design and construction when engaged in by government is in direct conflict with the basic principles of free enterprise and gravely detrimental to the best public interest.

Costs of maintaining facilities for the work by the state, payment of draftsmen, labor, supplies, etc., is equivalent to the same service rendered in private practice, so there can be no substantial economies effected there, and yet there is an important economic factor involved.

Architectural fees in connection with $112,000,000 worth of design and construction service would amount to some $8,960,000, more or less. Normal "sales tax" on expenditures of $8,960,000, and the average architect spends the larger portion of any fees he receives, would amount to $368,000. Private income is also subject to federal income tax, so it is conceivable that federal income taxes on such fees might represent some $1,692,000 of revenue.

Rather than devoting time, effort, energy and hard-to-get funds in a program of amending the present laws to permit use of private architects in government, why not expend these factors in a campaign designed to eliminate entirely any government activities which are in direct conflict with every phase of private enterprise and sound economics?

* * *

*". . . Total dollar values of all construction is headed toward still another new high of roughly $47.3 billion—up 6.3% in the year."—Fred Gower, Economist Consultant.*

* * *

## LEGISLATIVE ISSUES

With the "big" election behind us, and a new year well started, it is time for the businessman and the public, to turn their attention to those Congressional and legislative issues which will affect their pocketbook, their business or professional future, the historic American system of Free Enterprise, and the future conditions and factors which the coming generation will face as the professional, commercial, educational, and industrial leaders of our country.

Congress and State Legislatures have already begun work on many proposals to enact new laws, or amend existing laws, and a major concern of members of legislative bodies should be the effect of their action on business—today, and tomorrow.

You can get a pretty good idea of the task facing your representative in Congress and state legislative bodies by taking a look at a few of the major issues which have already appeared in various "hoppers."

Free farm markets, federal vs. private housing, minimum wage-fixing, social security, federal aid to education, government in insurance, foreign aid, right-to-work laws, secondary boycotts, atomic energy development, federal vs. private power development, equitable taxation and tax relief for taxpayers, general federal spending, postal rate increases, defense spending, and possibly some consideration may be given to Hoover Commission reforms.

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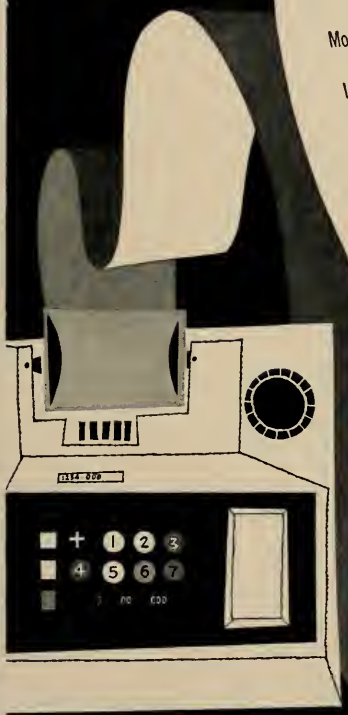

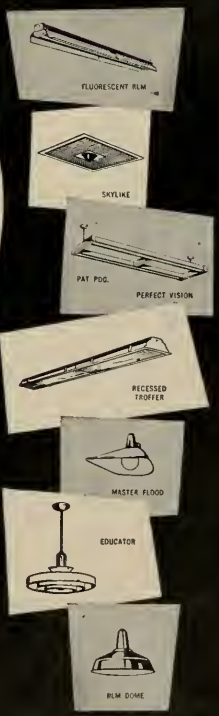


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# NEWS and COMMENT ON ART

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, is offering a number of special exhibitions and events for this month, including the following:

EXHIBITIONS: Contemporary Masterworks, representing a Collection and Collectors prizewinning selection; Contemporary Art in Japan, and Sabro Hasegawa; the 76th Annual Painting and Sculpture Exhibition of the San Francisco Art Association; and continuing in the early part of the month Design in Scandinavia.

SPECIAL EVENTS: Concerts and programs, include the lecture series on "The Anatomy of Art", the Concert, Composers' Forum, lecture on the "Problems of Urban Design", and poetry reading. Lecture tours of the Museum are conducted each Sunday at 3 o'clock.

A special feature will be a Design Symposium on "How Good is American Design?" sponsored by the Northern California Chapter, American Institute of Architects, American Institute of Decorators, San Francisco Fashion Group, Inc., San Francisco Industrial Designers' Institute in cooperation with the San Francisco Museum of Art. Panel members include: Gurdon G. Woods, moderator, Michael Belangie, Daniel Defenbacher, Franklin Q. Hershey, Henry Hill, and Maurice Sands.

The Museum is open daily.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, which is under the direction of Thomas Carr Howe, Jr., announces the following schedule of special exhibitions and events for February.

EXHIBITS: The Family of Man. Famous exhibition, selected by Edward Steichen and assembled by the Museum of Modern Art, New York, of 503 photographs from 68 countries, which take as their theme man's relationship to himself and his world. The exhibition is presented under auspices of the Stanford Convalescent Home Auxiliaries: Watercolors by Robert L. Holdeman.

ACHENBACH FOUNDATION FOR GRAPHIC ARTS: Showing at the Museum a group of Watercolor Drawings by Thomas Rowlandson. This is an exhibition commemorating the 200th anniversary of the birth of the great graphic humorist. On Loan Exhibition at the San Francisco Public Library: Views of the Tokaido Road in woodblock prints by Hiroshige.

EVENTS: Organ program each Saturday and Sunday afternoon at 3 o'clock. New classes for adults in contemporary approaches to painting will be held on Saturdays, starting February 16th, at 2 p.m.

The Museum is open daily—10 a.m. to 5 p.m.; holidays 1-5 p.m.

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Beatrice Judd Ryan, is presenting an exhibition of drawings by Edith Hamlin; Oils by Eugene Macbaken, and Collages by Jean Varda, through February.

In the Little Gallery is a special showing of Oils, by Stuart R. Perry.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is offering the following exhibits and special events for February.

EXHIBITS: Paintings by Stallknecht; Oils and Watercolors, by Marie Ridelstein; Oils and Watercolors, by Maurice Logan; an exhibit of the work of Three Painters, Rico Lebrun, Channing Peake and Howard Warshaw; Paintings by Sonia Gechtoff, and Women of Mexico, a group of photographs by Bernice Kolko.

SPECIAL EVENTS: Classes in Art Enjoyment for Adults, conducted by Charles Lindstrom, include Exercises in Oil Painting, Part II, Painting Workshop for Amateurs, and Seminars In The History of Art. Children's Art Classes, conducted by Miriam Lindstrom, include Picture Making, Art and Nature, and the Art Club. All classes are free of charge.

The Museum is open daily 10 a.m. to 5 p.m.

## DESIGNER-CRAFTSMEN OF THE WEST EXHIBITION

The M. H. deYoung Memorial Museum will present a comprehensive juried exhibition entitled "Designer-Craftsmen of the West, 1957" June 1 through July 31. Entry is open to all designer-craftsmen residing in Arizona, California, Montana, Nevada, New Mexico, Oregon, Utah, and Washington.

Crafts in the following media may be submitted: Bookbinding, embroidery, enamel work, furniture,

jewelry, lamps, metalwork, mosaics-terrazzo, pottery, rugs, silkscreen-printed textiles, stained glass windows, tapestries, tile painting and weaving.

Since the purpose of the exhibition is to demonstrate the advancement of western crafts, emphasis will not be on quanity but on highest quality. Each entrant may submit not more than three works. No entry fee will be charged. Entry blanks and further information may be obtained by writing Dr. Elisabeth Moses, Curator of Decorative Arts, M. H. de Young Memorial Museum, Golden Gate Park, San Francisco 18, California. Information cannot be given by telephone.

Entries from southern California, Arizona and New Mexico must be sent to Los Angeles State College, 5280 Gravois Avenue, Los Angeles 32, California, not later than April 8 for a preliminary regional jurying. Entries from Oregon, Montana, and Washington must be sent to the Henry Galleries, University of Washington, Seattle Washington, no later than April 8 to be juried. Northern California, Nevada, and Utah entries must be sent direct to the deYoung Museum between April 1 and April 15 at which time a final jurying of all accepted items from the eight western states will be held.

---

# M. H. DE YOUNG MEMORIAL MUSEUM

**Golden Gate Park San Francisco**

Secretary,
inlaid wood.

Made about 1770 by
David Roentgen,
German, 1743-1807

Roscoe and
Margaret Oakes Collection

HIGHLIGHTS STANFORD INSTITUTE REPORT ON

# ORGANIZATION AND FINANCIAL ASPECTS

# BAY AREA RAPID TRANSIT SYSTEM

## TO SAN FRANCISCO BAY AREA RAPID TRANSIT COMMISSION

**Reviewed by GEORGE S. HILL, Consulting Engineer**

### PREFACE

The engineering report is the result of more than two years' intensive study of the economic and physical factors of mass transit for the nine counties of the Bay Area by Parsons, Brinkerhoff, Hall, and Macdonald. The Stanford Research Institute was engaged to make a correlated study of the financial implications, organization, and operation of the system as planned, including alternative proposals. The San Francisco Bay Area Rapid Transit Commission is conducting a further study treating legal and legislative aspects of the plan. Basic features of a transit organization are analyzed to provide background for decisions concerning the appropriate degree of private or public ownership, control, operation, policy-making, and coordination with other public and private functions related to transit. Combinations of methods were analyzed with a view to setting forth the more realistic and effective means of meeting the problem.

### SECTION I.

### GENERAL SUMMARY

Information for the study was obtained from the engineers' study, transit organizations throughout the United States and Canada, regional authorities and districts of many kinds, government officials, investment bankers, and from independent specialists in transit, public finance, and public service.

It is necessary to decide whether to use a private organization or some form of public set-up such as a regional authority or district, or the established municipal or county government, or the federal government. Since substantial public support is needed, as indicated in the engineering study, private ownership might not be feasible. This would narrow the choice to public agencies.

Some form of regional organization for transit ownership and operation could manage area-wide problems with more dispatch than could separate local units. A unified approach is essential to a regional rapid transit system. This suggests that the choice of organization is further narrowed to regional types.

The program can be carried out either by a regional authority or a regional district. The authority form is noted for freedom of action in controlling the transit program, especially with respect to routes, standards of service, rates, and financing. It can issue revenue bonds for capital funds without voter approval. The fact that the authority type of organization is usually beyond the reach of local voters gives it administrative freedom, but this has also been a source of criticism. It cannot issue bonds upon the faith and credit of the area, and would not have the power to raise money by taxation. A district form of organization would have these two important abilities that the authority lacks. In other respects, the authority and the district could be similarly constituted to accomplish about the same purposes. Both the authority and the district are creations of the State Legislature.

Under a regional type of organization the program could benefit from a broad grant of discretionary powers over the physical and financial phases of the transit system. By this means problems could be met with the best solution, as the objectives of the program are carried out. Adequate overriding public controls should be provided to safeguard the public interest. Municipal or county ownership of the system would face the difficulties of uneconomic small-scale operation and lack of coordination with an area-wide program plus the problem of raising large sums of money within local bonding limits and practical taxing methods. From the standpoint of the area-wide system, any lack of success within a local unit of government might impair the effectiveness of the transit program. Therefore, the first-hand appreciation of local needs should be preserved. Neither state nor federal ownership is in accord with customary practice.

The solution of the Bay Area transit problem requires a standard of service that cannot be covered entirely out of operating revenues. Gross operating revenues are expected to exceed operating expenses by almost 10 million dollars, which would be sufficient to finance the debt for rolling stock costing 8 millions

**The purpose of this review is to provide a condensed summary of the findings in the report. It is offered without interpolations and intentional changes in meaning. It is presented in the hope that it will stimulate interest in the project, the success of which will depend upon the measure of public support it receives.**

and miscellaneous items. The total debt service would be about 39 millions annually. Public support is therefore requisite.

Financing is assumed to be by means of 5- to 30-year serial bonds bearing an average interest cost of 2½ per cent. The payments would extinguish the entire debt on the first stage in 30 years.

Five principal sources of financial support are listed: fares, bridge tolls, property taxes, retail sales taxes, and gasoline taxes. Other sources of revenue such as income taxes, gross-receipt taxes, or pay-roll taxes are not regarded as appropriate for rapid transit support except as a last resort. Federal or state grants-in-aid could have a stimulating effect, but as these are outside aids and would be welcome, such financing is almost never committed on a long-range basis and therefore could not be counted upon as security for bonds. A combination of methods would seem to be the most feasible. If collections should exceed needs, the excess could be used to aid local transit, feeder lines, parking facilities, or more general functions.

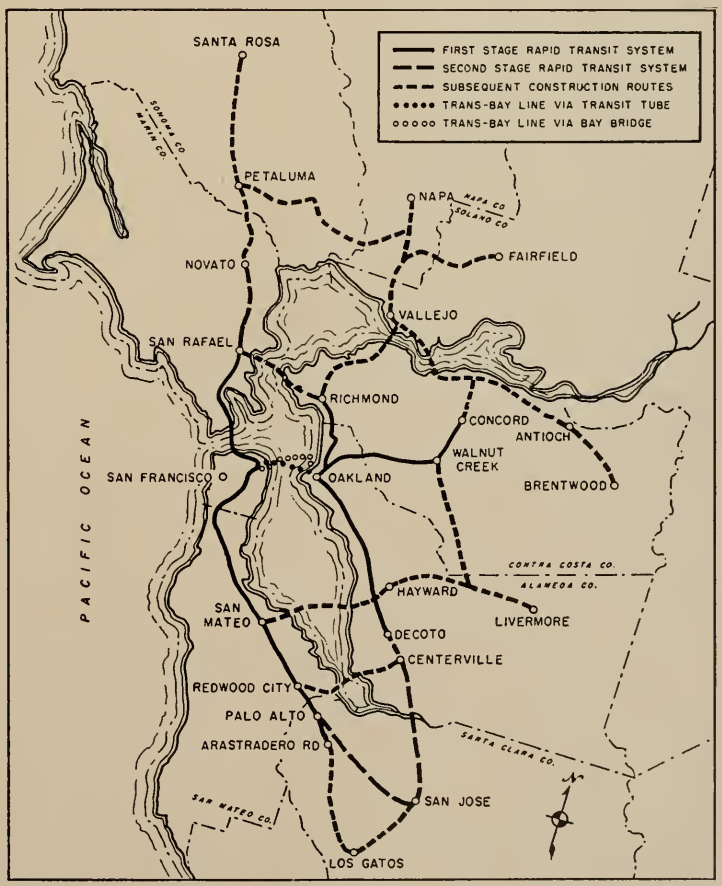
It is assumed that the board of the transit organization should make the final decision as to the kind of transit system to be adopted, its routes, services, and major policies, even though the engineering study recently completed makes certain recommendations along these lines. Such recommendations are not intended to be binding, as conditions may change or basic assumptions may be altered. The board should be left in a flexible position to adapt the organization and the fund-raising program to the system actually selected.

## SECTION II

## SUMMARY OF ENGINEERING STUDY AND SETTING FOR THE FINANCIAL STUDY

A mass rapid transit system for the Bay Area is feasible, and beyond question is economically justified. The alternatives would be far more costly although

**BAY AREA RAPID TRANSIT AREA MAP**




SOURCE: Parsons, Brinckerhoff, Hall and Macdonald, Engineers, New York B-1247-1

some of the costs might not be so clearly discernible. The answer to ever-increasing traffic congestion lies in the utilization of a high-speed grade-separated interurban transit system as complemental to the regional highway network. It is proposed that each mode of transportation, public or private, be provided to the extent that each is most appropriate economically. The hub of the plan is the trans-bay tie joining San Francisco and Oakland. The engineering plan provides for construction in stages but not in piecemeal fashion.

The so-called minimum plan is not considered satisfactory by the engineers. It has the disadvantages of inferior travel time, poor passenger distribution at central terminals, and poorer financial results from operations. Also, the minimum plan contemplates the use of space on the bridge which could otherwise be converted for highway use. It would require elevated structures in downtown San Francisco and Oakland. These necessarily would be only temporary in nature. The report recommends the conventional supported system, much of which could run on the surface.

The proposed system will postpone the need for additional Bay crossings for automobile traffic costing hundreds of millions of dollars. It is the least-cost solution to the transportation requirements, while meeting the demand for single-family dwellings in suburban areas, and preserving and enhancing the urban concentration of employment and commerce. Where one venture succeeds while another of greater economic and social merit fails to get under way and survive, the difference is often found in the relative ease or difficulty of financing. The most challenging aspect of the transit system is the need to rely upon public support for the bulk of the capital costs. The related problems of allocating financial responsibility and tax burdens are of great concern.

The analyses in the following sections are based upon these assumptions made by the engineers, affecting estimates of cost and financing: 1. The rapid transit system will be built as planned and be efficiently operated. 2. The system will be integrated with other transit facilities and no competing transit facilities will be constructed. 3. The transit organization will be the sole authority on rates and it will be tax exempt. 4. Future highway and parking facility expenditures in the area will receive advance review to insure that they are complemental to the transit system. 5. General economic trends in the Bay Area will continue. 6. A vigorous campaign of public education to support and patronize the rapid transit system will be conducted.

## SECTION III

## ORGANIZATIONAL ASPECTS

The type of organization will be governed by three influences: the general objectives of the transit program, the problem of financing, and the legal and legislative problems and possibilities.

The legislative framework of the State need not be a barrier to effective organization. There are two alternatives: private or public ownership. Public ownership may include alternative kinds of governmental units such as county or local, regional, state, or federal. The rapid transit system should be an integrated one throughout the area served. The key to good local transportation of all types is to relieve highway congestion by inducing rush-hour commuters to use the train service.

Attractive service and economy will be necessary. Private ownership is considered more efficient but seems well-nigh impossible for the proposed Bay Area system, because there would be no margin of profit if the objectives of relieving street traffic congestion are to be met. A rate policy which aims at the highest transit patronage will not be likely to be set at the level producing the greatest gross or net revenue. Since the revenues would exceed operating expenses by only about 8 to 12 million dollars a year, the operating income would not go far beyond financing the rolling stock, except that rolling stock might be leased to the transit system. To subsidize private owners would defeat much of the incentive for private enterprise. An alternative would be to make a contract with private interests who might either lease the facilities or operate them under a management agreement.

A regional organization embracing the nine counties of the Bay Area (or perhaps the six counties served by the first stage system) seems to offer important advantages over transit ownership scattered among several independent governmental units or private owners, and would have superior financial capacity.

The two types of regional organization having jurisdiction over rapid transit are the authority and the district. The transit authority is usually a public body created by the legislature to exercise rather broad administrative powers to provide adequate transit service, and is usually governed by a small board whose members are appointed by the governor. It usually has jurisdiction over rates and service, and always has power to plan, construct, buy, lease, and sell, and to operate transit facilities. It has power to borrow money and issue bonds without the vote of the public. Bonds are usually not secured except by the revenue. Taxing power is usually absent, and this would seem to rule out the authority as a type appropriate for the Bay Area rapid transit system. Criticism of authorities has been their tendency toward undue independence unchecked by overriding public control.

A transit district usually is created by the state legislature through an enabling act approved by the voters in the district, sometimes by a formula which allows local option. It has the power to levy taxes on property or other bases specified in the enabling act.

The district form usually relies on local government for appointments and has more elective offices than does the authority. Customarily, a majority of two-thirds of the votes cast is required to approve bond issues, and this might prove to be an inherent handicap to the district type of organization.

In some areas, several municipal functions have been transferred to a metropolitan government. The whole problem of urban transportation cannot be solved by the improvement of a single facility in one area without regard to the others. Nevertheless, the established organizations of local government possess first-hand knowledge and competence where local functions are concerned which should not be overridden by a "super" government.

In some instances, if responsibility were confined to

the county, a transit system would encounter difficulties in bond financing because of legal limitations, and the credit standing would be less than that of a group of counties.

State or federal operation of rapid transit would be a departure from tradition in the United States. Federal ownership has not been seriously considered because of the local nature of the transit problem, but this need not rule out federal or state aid for rapid transit.

Essential considerations in a regional organization for Bay Area rapid transit are: a unified power of administration throughout the transit district; power to issue bonds based upon the authority to levy taxes; broad discretion to determine the major policies pertaining to routes, service, types of facilities, and fares, with due regard to public preferences. The governing board should not be too large. A well-paid general manager should have entire administrative responsibility and accountability, tempered by the broad general policies determined by the board. The region must consist of contiguous areas. Provision should be made for cooperation with other transportation agencies and other public bodies, and authorization to receive or give financial aid. Domination by large or small groups should be avoided. There should be latitude in perfecting the organization, and discretionary power to make contracts with private agencies which might engage in transit service.

## SECTION IV

## CAPITAL REQUIREMENTS AND INDEBTEDNESS

Total capital requirements for the first stage system under the optimum plan, with supported trains would be about 873 million dollars:

| | | |
|---|---|---|
| Construction | 716 | millions |
| Financing costs | 4.5 | " |
| Interest during construction | 48 | " |
| Working capital | 5 | " |
| Administrative expense | 2.5 | " |
| Rolling stock | 90 | " |
| Contingencies | 7 | " |
| Total | 873 | " |

Construction time, 5 years. Required in first year, 190 millions. Thereafter per year, 150 millions. Bond financing therefore seems inevitable.

Indebtedness would reach 700 millions before reductions would exceed increases. The Bay Area system is planned for interurban passenger transportation although it will serve local traffic to some extent within cities.

It is assumed that alternatives of plans or fare schedules, or arrangements to effect economies have either been considered, or are to be studied by research yet to be programmed.

The income from fares and other transit revenues is expected to be about 29 millions in a year of seasoned operation, and operating expenses about 19 millions, leaving about 10 millions a year to be applied to the financing task or other transit purposes.

The opportunity to use revenue bonds is precluded by the lack of operating surplus, but they could be used to supplement general obligation bonds. General obligation bonds would have a strong credit rating and be exempt from income taxes.

By a reasonable amortization schedule, the debt can be reduced, even when augmented for later stages of construction, and still not exceed the high-point required for first stage construction.

## SECTION V

## SOURCES OF FINANCIAL SUPPORT

The choice of sources is somewhat limited, and seems essentially: fare revenues, bridge tolls, taxes on tangible property, retail sales taxes, gasoline taxes, and probably some state or federal aid.

Fares cannot provide more than half, or 29 millions of the total annual financial requirements of 58 millions, including debt service, and an attempt to obtain the maximum fare revenue would be likely to reduce patronage, and thereby increase highway congestion. The engineers recommended a variable fare, lower during the off-peak hours. Revenues other than fares would consist of concessions and advertising.

Bridge tolls should be correlated with transit fares. The San Francisco-Oakland Bridge has retired the initial bonds which financed its construction. Its net revenue is about 9 millions per year, and it is now pledged to support bonds for additional Bay crossings. According to the engineering study there would be no need for an additional highway bridge for 15 or 20 years, with rapid transit. Automobiles require several times the traffic space and a much higher capital cost per passenger than is needed for mass rapid transit. The Golden Gate Bridge could be modified to hold tracks for the transit crossing to Marin County.

A general property tax is indispensible as underlying security, such as that now applying to the Golden Gate Bridge. If the 31 millions of public support for the transit system were derived from property taxes alone, it would mean an average increase of 67 cents per 100 dollars of assessed value in the 9 Bay Area counties if all were taxed uniformly. The total rate is now 6.92 dollars per 100. The property tax might be levied under two different rates — the higher one applying to a zone from which the major part of the patronage would come. Hypothetical yields from a tax on property within a 4-mile zone at 20 cents per 100 would be about 6.3 millions and from the entire area at 5 cents per 100, about 2.3 millions per year. Property owners in the Bay Area would enjoy enhanced values resulting from the new facility. The property tax would allow the system to operate on whatever fares were deemed most advantageous to the over-all aims of the community.

A regional sales tax collected for the transit region by the State using the same sales basis as the State tax would produce a high yield and be dependable. It would probably meet with the least objection from the public if kept at less than 1 per cent, and spread the burden most effectively throughout the entire area. A sales tax of less than 1 per cent would produce the entire public support of 31 millions per year needed by the system. Construction expenditures would provide a trade stimulant.

A tax on gasoline administered in conjunction with the existing state and federal collections, would have some of the characteristics of the retail sales tax. Its yield would be substantial with a modest charge per gallon. At one-half cent per gallon the revenue would be about 5 millions. Although the highway program needs more funds than it receives, this is a reason for

applying part of the funds where they would do most to relieve congestion.

## SECTION VI

## FINANCIAL RESPONSIBILITY AND ITS ALLOCATION

The first-stage project is financially feasible. The critical question is the amount of annual public support needed by the transit system in relation to the ability and willingness of the community to provide it. The consideration is about 31 millions per year for 30 to 35 years. A combination of sources of revenue would reduce the impact of public support to proportions which would not be distorted unreasonably.

In terms of annual payments required for principal and interest on transit bonds the estimated 31 millions is compared with total tax levies of tangible property in the Bay Area of about 279 millions in 1954-1955. The shares per capita are 10 dollars and 90 dollars respectively. These figures compare with per capita personal income in the Bay Area of 2100 dollars per year. The annual public support for the transit system would be about 11 per cent of the total levies. The levies increased about 48 millions in the latest fiscal year or more than the amount needed by the transit program each year. Expenditures on highway and street programs in the Bay Area were about 113 millions in 1954. This is mostly covered by "user" taxes. These large expenditures are cited to indicate that if the transit program is economically sound it need not fail because it is too large to finance, provided the public wants it.

There are three general guiding factors which may be followed: the costs of the system, its benefits, and the ability to pay of the groups affected by the program.

A sweeping reason for not using the cost basis in allocating financial responsibility is that the service proposed for the transit system is an area-wide concept.

Population is one of the more satisfactory bases for apportionment.

The assessed value basis for apportionment has an advantage in that it can be used as the final allocation to the taxpayer. The property basis for allocation is one which attempts to recognize ability to pay.

It appears that bond financing will be a necessity. This has an important effect in dividing the burden between the present and future generations. The credit of the areas served must be pledged to give the bonds security. This means that the transit organization must have the power to tax. In the absence of new regional or local taxes the only adequate tax would be that on property.

If bridge tolls are used, the charges for the benefit of the transit system will be borne by motorists from a wide area reaching far beyond the Bay Area, but the largest concentration of bridge traffic originates in the Berkeley, Oakland, and East Oakland areas.

The use of a sales tax would be in recognition of the general correlation between retail sales and population, personal income, registered motor vehicles and assessed value per county.

The effects of a gasoline tax are more narrowly placed than those of a general sales tax.

Either the property tax, the retail sales tax, or the gasoline tax are capable of supporting the transit system without disrupting the economy of the area. It would be more effective and equitable to rely on several sources of revenue to supplement revenue from fares. An infinite number of combinations can be made on paper and doubtless in practice. Three examples are given. The variables are bridge tolls and gasoline taxes.

**Combination 1**

| | |
|---|---|
| Transit fares | $29,000,000 |
| Property taxes: | |
| $0.05 per $100, 9 counties | 2,303,000 |
| $0.20 per $100, transit zone | 6,336,000 |
| Bridge tolls | 9,000,000 |
| Regional retail sales tax, $0.005 per $1.00 | 20,685,000 |
| Regional gasoline tax, $0.005 per gal. | 5,724,000 |
| Total | $73,048,000 |
| Operating expenses and debt service | 57,826,000 |
| Excess of revenue over requirements | $15,222,000 |

**Combination 2**

| | |
|---|---|
| Transit fares | $29,000,000 |
| Property taxes: | |
| $0.05 per $100, 9 counties | 2,303,000 |
| $0.20 per $100, transit zone | 6,336,000 |
| Regional sales tax, $0.005 per $1.00 | 20,685,000 |
| Regional gasoline tax, $0.005 per gal. | 5,724,000 |
| Total | $64,048,000 |
| Operating expenses and debt service | 57,826,000 |
| Excess of revenue over requirements | $ 6,222,000 |

**Combination 3**

| | |
|---|---|
| Transit fares | $29,000,000 |
| Property taxes: | |
| $0.05 per $100, 9 counties | 2,303,000 |
| $0.20 per $100, transit zone | 6,336,000 |
| Bridge tolls | 9,000,000 |
| Regional retail sales tax, $0.005 per $1.00 | 20,685,000 |
| Total | $67,324,000 |
| Operating expenses and debt service | 57,826,000 |
| Excess of revenue over requirements | $ 9,498,000 |

In each of these examples a sizeable excess over requirements results. Possibly some one or more of the hypothetical sources would not be available, or the rates could be reduced where the tax seems most burdensome, or refunded to the local communities. County by county distribution of financial responsibilities is inconsistent with a unified transit system. State aid does not seem justifiable, except that in the matter of rights-of-way the State could be of immediate assistance, and would doubtless save many millions of dollars. Repayment could be made when the transit organization is perfected. State aid should not be used as security for the bonds of the system. The case for federal aid for the Bay Area rapid transit

(See Page 34)

LIVING ROOM of the "SIGNATURE HOME"

# "PSYCHOLOGICALLY PLANNED" HOMES

## WIN NATIONAL ASSOCIATION OF HOME BUILDERS AWARD

GARDEN GROVE, CALIFORNIA
BUENA PARK, CALIFORNIA

DAN PALMER
WILLIAM KRISEL } AIA Architects

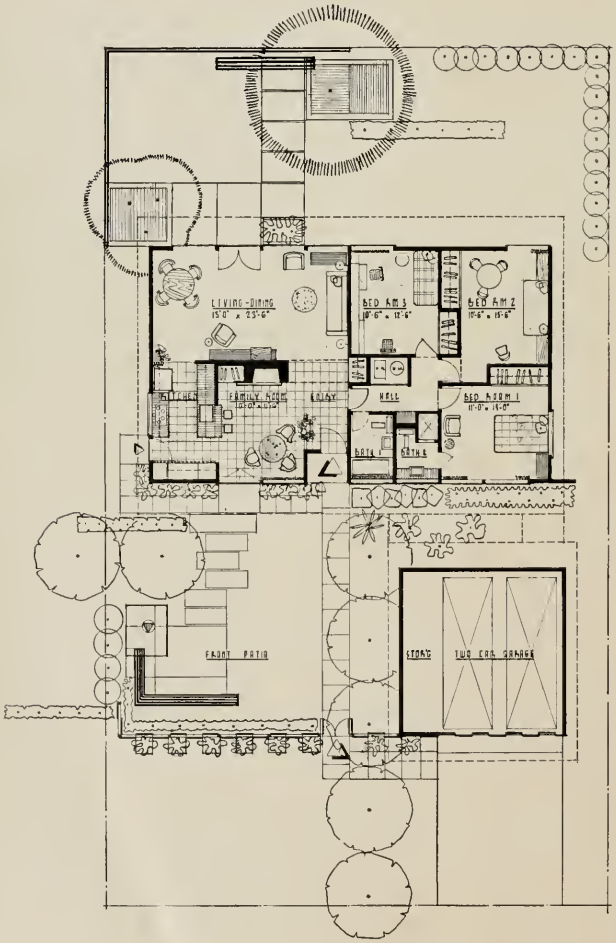
MIDWOOD CONSTRUCTION CO. — Builders
LARWIN COMPANY — Builders

## PSYCHOLOGICAL HOMES . . .

For the second time in two successive years, Los Angeles architects Dan Palmer and William Krisel have achieved the unique distinction of winning two Design Merit Awards presented annually by the National Association of Home Builders. Like their previous prize-winners, the 1957 award houses exemplify the modular framing system and open-planning that have become P. & K. trademarks over the years. But they also represent a dramatic new departure in subdivision house design by reason of their "psychologically oriented" floor-plans.

Recognizing that each prospective home-buyer is an individual with his own special family problems, Palmer and Krisel have lately been experimenting with houses designed to accommodate not only the physical but the psychological differences that exist between human beings. The NAHB Award winners illustrate their interpretations of the "introvert" and "extrovert" houses, devised to suit the particular needs of two different types of home-owner.

"By introverts," Palmer explains, "we mean those families whose home life is divided from their social activities, who are apt to want a little more privacy and formality than their neighbors. The extroverts, on the other hand, are less concerned with convention, are more inclined to entertain as a family than as individuals, and generally follow a more informal way of life. Obviously they need different kinds of houses."




**FLOOR PLAN of "SIGNATURE HOME"**

**NAHB MERIT AWARD WINNER for 1957**

**MIDLAND CONSTRUCTION COMPANY**
**Builders**

**KITCHEN AREA**

**of the**

**"SIGNATURE HOME"**

**Has color matched built-in appliances.**

**FAMILY ROOM is the focal center of the "Signature Home"; raised hearth fireplace and open ceiling add to attractiveness.**

**THE "TOWN and COUNTRY" HOME, designed by Architects Palmer and Krisel, AIA, for the Larwin Company, builders, Buena Park, California, and 1957 Design Merit Award Winner of the NAHB.**

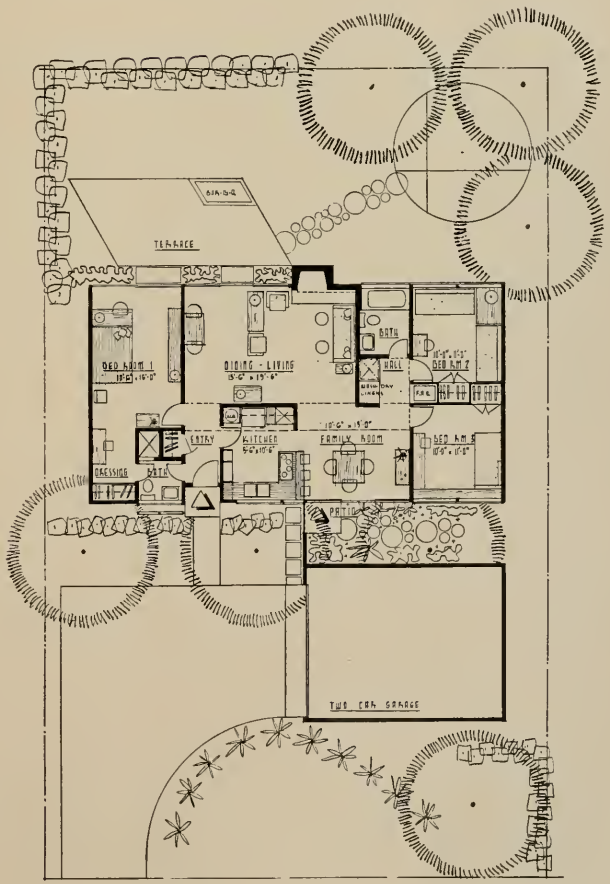
**"TOWN and COUNTRY HOME"**

**Looking into the family room from the kitchen which has been designed as the focal center of the house.**

The "Signature" home, designed for Midwood Construction Co. by Palmer and Krisel, is frankly "extrovert," for the family that prefers an informal, communal way of life. Consequently the family room has become the focal center of the house, with the raised-hearth fireplace here rather than in the living-room, and a large fully fenced patio in the front. (There is also a patio in the rear off the living-room.) The kitchen, with its color-matched built-in appliances, serves both the food counter in the family room and the dining area in the living-room. The two baths have marble-topped pullman lavatories, colored fixtures, and specially designed cabinets. With the three bedrooms occupying one side of the house, the living-family room-kitchen area, with the adjoining patios, provide an unusually extensive area for large-scale but nevertheless informal entertaining.

Although contemporary in design, the house incorporates a shake roof and hardwood flooring, the latter engineered in such a way that it is not much higher off the ground than the usual concrete slab, thus maintaining indoor and outdoor living areas on a continuous plane. Cathedral ceilings and floor-to-ceiling fenestrations emphasize the height of the individual rooms, with aluminum frame windows expressly designed by the architects to provide maximum light and ventilation without the necessity of screens.

On the other hand, the "Town and Country" model designed for the Larwin Co. is an example of the "introvert" home. With the kitchen as the central "core," serving both areas, the 1180-square foot house is designed as two interlocking L-shaped zones, one of which contains the master bedroom, bath and living-room, the other the family-room, two children's bed-




**FLOOR PLAN**

**af the**

**"TOWN and COUNTRY HOME"**

**Buena Park, California**

**The LARWIN COMPANY Builders**

**CONCRETE**
**STONE FIREPLACE**

**In corner of living room of the "Town and Country" home.**

**Purlin construction with exposed sheathing ceiling.**

**THE KITCHEN in the "Town and Country" home is the center of all activities, serving two interlocking L-shaped zones; built-in oven, range and garbage disposal; rubber tile floor, exposed ceiling.**

rooms and bath. The result is a floor-plan zoned for parents and children, each with its own outdoor living area in the form of patios front and rear. Such a plan makes possible separation of family and social life and permits fairly normal—and private—entertaining.

Of purlin construction, with two-inch exposed sheathing, concrete slab floor and lath and plaster walls, the house also features wide overhangs, concrete stone fireplace, 12 foot steel sliding glass doors and, in the 200 square foot concrete terrace, a built-in luau barbecue. Kitchen appliances include built-in oven, range and garbage disposal. A special "laundry center" recessed in the hall between the children's bedrooms contains built-in electric washer-dryer as well as a specially designed clothes hamper, sorting shelf and linen closet. The ceiling of the hall is furred with translucent plastic illuminated from above.

The master bedroom suite, extending the full width of the house, has at one end its own sliding glass doors to the patio and at the other a dressing room with wardrobe and built-in vanity. The master bath, accessible also from the entry, serves as a guest lavatory.

"Even in lower-priced subdivisions," says Bill Krisel, "the trend today is towards more variety and less uniformity, and modern home-buyers are shopping for houses that will be not only distinguishable from their neighbors but will meet their own highly personal living requirements. How to reconcile this growing public demand for 'customized' housing with the basic economics of volume construction is the challenge that faces the architect today."

**MASTER BEDROOM of the "TOWN and COUNTRY" Home; purlin construction and exposed sheathing; wall-to-wall carpeting over a concrete slab floor; lath and plaster walls; ceiling windows.**

**HOTEL**
**SHAMROCK**

**Houston, Texas**

# NEW, MODERN
# HOTEL BUILDINGS
## In the United States

Immediately after the Second World War there was a short trend in the hotel industry to build new hotels. This trend actually saw hardly any fulfillment since the majority of experts, remembering the bad experience of the Twenties, advised strongly against the construction of new hotel buildings.

So far caution has won the victory and not many new hotels have been built during the last decade, and those mostly in boom-areas such as Florida and Texas. Just recently there was a lively discussion in New York whether new hotels should be erected. Only two new ones have been built in the last ten years—the 464-room Carlton House, actually a residential hotel, and the 40-room La Guardia Airport Hotel in Queens. So far, New York's 122,784 hotel rooms have been able to take care of the city's visitors. Altogether New York has 400 hotels, and no new ones are being planned at present. Building costs are considered too high to warrant the expectation of a normal revenue. The Statler hotel chain though is not afraid of erecting new hotels, and the new Statler hotels in Washington, Los Angeles and Hartford, Conn., decidedly do not operate in the red.

### Shamrock Hotel, Houston, Texas

One of the most modern new hotel buildings is the Shamrock Hotel in Houston, Texas. There was much publicity when the hotel was opened around St. Patrick's Day. 2,500 shamrocks were flown over from Eire. The hotel was built "in an effort to make Manhattan's Waldorf-Astoria look like a lodging house."

The Shamrock building has 18 floors, plus a basement, a partial sub-basement, an attic and machine room floors. It has 1,100 rooms—which is still a little less than the Waldorf-Astoria's 2,000. Overall height above grade is 253 feet, it extends 24 feet below grade. The total floor area is more than 655,000 square feet, the building has 7.3 million cubic feet. The garage building contains five floors and a full basement and provides storage for 1,200 cars.

Walls of the hotel are paneled in Honduras mahogany. All lighting is indirect; lucite fixtures form a cloud effect. Each patron's room in the hotel, regardless of price (starting with $6 a night), has individual air-conditioning. Most rooms have a specially designed sofa-bed that "pulls out" instead of unfolding. It

makes each room a sitting room in the daytime. Every room has private bath with tub and shower.

There are efficiency apartments in the hotel, so-called "Doublettes." They are larger than the bedrooms, but one room units with kitchenette facilities. They are so named because they serve a double purpose, a sitting room in the daytime and a bedroom at night. 30 separate air-conditioning systems are served by four major systems, one for each exposure of the hotel. The patron can also regulate the humidity as well as the temperature in the room. Refrigeration units in the basement cool the water. They have capacity equal to the melting of 3,000,000 lbs. of ice daily.

### Pleasure Palaces in Florida

The pace of construction in Florida has slowed down somewhat during the last year. Still four new big hotels were put up last year and only one of them is actually within the corporate limits of the city of Miami Beach. It is, however, the biggest one of all—the fourteen-story Fontainebleau, whose semicircular white concrete bulk has added favorably to the skyline of Miami Beach.

The Fontainebleau, at present, is the ultimate extension of the traditional modern luxury hotel to superlative standards of size and decor. It was constructed at a cost of $14,000,000 and it was planned to "the

**STATLER CENTER**

**Los Angeles, California**

Holabird & Root & Burgee Architects

most luxurious resort in the world," featuring 560 rooms and 250 cabanas. It has a staff of some 900, an Olympic swimming pool and a modest one for children. Its motif, as the name says, is French, the furniture is French Provincial, the columns in the lobby are surfaced in a warm French marble.

There is more than 17,000 square feet of space in the main lobby. The main dining room can seat 900 banquet style. The adjacent Grand Ballroom can serve an additional 1,250 guests and an intimate dining room in that area can serve an additional 170. A night club within the hotel can accommodate 500 on its three levels. The dance floor can be raised and lowered hydraulically.

Architect and designer of the Fontainebleau is Morris Lapidus. The top floor of the hotel has three-room "presidential suites" with rooms 14 by 28 feet and balconies. Two-room "Governor's suites" are also included on this floor.

### Hotel Terrace Plaza, Cincinnati

The 19-story building that houses the Terrace Plaza Hotel in Cincinnati is something new in hotels. Thomas Emery's Sons, owner of the Netherland Plaza one block away, has erected a 12-story, air-conditioned, 400-room hotel on top of two big stores. This furnishes a sturdy financial basis for a hotel even though it is expensive to build and risky to operate.

The hotel has a lot of new features, "they dared to be different." They created new type guest rooms with movable, motor-driven beds and specially-constructed functional furniture. They devised bathrooms with full-wall mirrors and specially designed lavatory-powder bench fixtures. They put their lobby on the eighth floor, served by express elevators. They built an outdoor dining terrace for summer which can be turned into a public ice skating rink in winter. Each room has individual temperature control and air conditioning.

Houston's Shamrock hotel cost $21 million to build, Cincinnati's Terrace Plaza about $15 million.

### Complete Hotel Facilities on the Motel Level

There are many motels today in the United States which in no way are on a lower level than a modern

(See Page 23)

**HOTEL STATLER—Hartford, Connecticut. Cost to construct $7,000,000.**

# WRITING MODERN SPECIFICATIONS

**By SPENCER LANE**

The importance of specifications in modern construction contracts is rapidly increasing with the increasing demands of modern living. Architects and engineers have learned to look for trouble in the specifications when there is a wide spread between the high and low bids, and that is where they usually find it.

The first function of the specifications is to explain fully and clearly just what the contractor will be required to furnish for the price he bids. When they fail to do this the bidder is unable to accurately estimate the cost. He then plays safe and bids a little higher to make sure he is covered. When this happens, he either loses the job to another bidder who gambles he will be able to cut corners, or the owner pays too high a price for the job.

The Construction Specifications Institute was formed, with headquarters in Washington, D. C. to meet this situation. Chapters have been formed across the nation. There are four in California today, one each in San Francisco, Sacramento, Los Angeles, and San Diego. The active members are professional specification writers, the associate members represent the material men of the country.

These material men are an important part of the Institute. The specification writer must know what materials are standard with the manufacturers and what have to be special. The standard product is made in quantities so it is cheaper. When a standard product will do the job the owner loses money if a special product is required by the specifications.

The specification writer must know how the product

(See Page 23)

# A NEW CENTURY BECKONS

## A.I.A. Centennial Year Observed

Architecture, which earlier had been the province of the builder, the carpenter, and the talented amateur, became a profession on February 23, 1857, when 13 idealistic architects met in New York to found the A.I.A. This service was acknowledged on the founding site on the Centennial date—Feb. 23—by representatives of five co-sponsoring New York City chapters. The original A.I.A. meeting house has been replaced by a building at 111 Broadway which overlooks the famous Trinity Church, designed by the national organization's first president, Richard Upjohn. During the ceremony, A.I.A. President Leon Chatelain, Jr., unveiled a plaque which was affixed to the building on the original headquarters site.

The birth of the A.I.A. followed establishment of the American Medical Association by ten years. It preceded the formal organization of the nation's lawyers by 21 years. Like the other two great professional bodies, the A.I.A. has maintained throughout its history a high code of professional standards and ethics which govern the practice of the profession and the relationship of the architect to his client. Today, at the urging of the A.I.A., state registration laws require the architect to demonstrate his competence.

The A.I.A. was instrumental in the establishment of the nation's first architectural schools at the Massachusetts Institute of Technology, Columbia University, and the University of Illinois. It continues to guide and support accredited schools of architecture.

Following the Civil War, A.I.A. chapters began springing up throughout the nation. The organization's scope was further broadened by the merger, in 1889, of the A.I.A. and the Western Association of Architects. At the present time, there are A.I.A. chapters in every state of the Union.

In the 1890's, one of the A.I.A.'s earliest public contributions was its fight to restore to the nation the original concept of the national capital in Washington, D. C., as formed by Thomas Jefferson and L'Enfant. Few will remember, or even believe, that this national shrine had been descrated to the point that a railroad station squatted at the foot of the Capitol building and railroad tracks ran across the Mall.

Led by its president, Daniel H. Burnham, a renowned architect of his day, the A.I.A. waged a determined fight and ultimately succeeded in having the original plan restored and the eyesores removed.

The national organization is planning a major cultural contribution to the nation to mark the national Centennial Celebration. Inthis program, to be held May 14-17 in Washington, D. C., distinguished representatives of government, science, business, labor, and the arts have been invited to participate in a grand forum. This forum will define the forces which will shape the environment of the future and guide the planning of man's shelter of tomorrow. The theme for the national program is "A New Century Beckons." The prospectus for the Centennial Celebration states, in part:

"It is recognized that the forces which shape human

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# BELLWOOD COMPANY'S NEW
# INDUSTRIAL FACILITY

## ORANGE, CALIFORNIA

The Bellwood Company, a subsidiary of the Packard-Bell Electronics Corporation, has completed a move from former quarters in Santa Ana to its new home in Orange.

Its new $250,000 plant, built on a 20 acre tract of land, will allow a substantial increase in the production of hollow-core, flush doors with some estimates running as high as 50 per cent.

Constructed of modern "tilt-up-concrete," the facility contains 50,000 square feet of space and houses both production and administrative operations.

Besides the new structure, the Bellwood Company has invested heavily in new equipment which will figure importantly in the estimated production increase.

According to John H. Sawyer, president and general manager of the Southern California Company, future plans include widening the firm's market area with national distribution as a goal, a search for new products to manufacture and the introduction of a deluxe, lattice-work frame door built to architectural specifications. This door would be for use primarily in better homes, schools, hospitals and public buildings.

At the end of the last fiscal year, the Bellwood Company reported a sales volume of $3,500,000 with unit sales of 700,000. This sales volume plus the need for a new plant is truly amazing when it is realized that the Bellwood operation began less than four years ago.

## MODERN HOTELS

(From Page 20)

luxury hotel. In fact, quite a few wealthy drivers prefer the informality of a luxurious motel to the traditional hospitality of a Grand Hotel.

One of the most modern motels with perfect and complete facilities of a luxury hotel is the Jack Tar Hotel in Galveston, Texas. Air conditioning, electrical facilities, plumbing lines, heating lines, ground maintenance and building maintenance, all presented special problems when these facilities had to be spread out over 4½ acres of space, approximately 70 per cent of which is covered with buildings.

Thomas M. Price is the architect. Jack Tar Hotel is located on the Gulf of Mexico. The hotel has about 1,000 feet of frontage on the highway, facing the Gulf of Mexico. Patio and the pool with its free-form design are exceptionally welcome to the guests. The pool is of unusual design, extending in irregular curves around the entire patio area. The exterior walls are constructed of 12-inch Mexican type brick. All in all, the hotel has 175 rooms, all fully air conditioned with circulating ice water, radio and television.

The problem of adequate room service over such a wide expanse of service area is solved by the use of service bicycles, which are three-wheeled bikes with built-in service compartment. Another use for horizontal transportation is the small electric three-passenger cars which are used for rooming guests. They haul a small trailer in which guest luggage is packed.

### The New Statler Center, Los Angeles

Typical for the new hotel buildings of the Statler chain is the new Statler Center in Los Angeles. It occupies an entire city block, is comprised of a 1,300-room hotel, an office building with 150,000 square feet, shops and stores, a 500-car underground garage and a semitropical garden-pool area in the heart of the business district. Architects were Holabird & Root & Burgee of Chicago, and William B. Tabler of Hotels Statler Company Inc. The cost was $25,000,000.

Every guest-room is air-conditioned, with individual control. Each of the five great wings has a separate foundation, making possible earthquake-proof construction. 70% of the guest rooms are of the studio-type—living room by day, bedroom at night. Facilities of Statler Center for conventions, banquets and group business are the largest west of Chicago. The main ballroom accommodates 1230 persons.

Dining rooms have been built around the kitchens, so that each kitchen opens directly into the rooms it serves. Upwards of 15,000 meals day can be prepared in three kitchens. Statler used a special light concrete in the walls, thus allowing for a lighter supporting framework and smaller foundations.

Newest of the new hotels in the Statler chain is the $7,000,000 Statler in Hartford, the capital of Connecticut. It is an 18-story, 445-room, aluminum, glass and porcelainized metal skyscraper. To a certain degree, it looks like a smaller edition of the ultramodern Los Angeles Statler. Architects were the same as at the Los Angeles Statler. The Hartford Statler has only two big meeting rooms: ballroom and assembly hall. Individually they seat 600 each, but are easily combined to handle one large group. The main dining room doubles as a night club.

## Writing Modern Specifications

(From Page 21)

he calls for is installed as well as where it should be used and where it should not. With new materials being developed daily he must be on his toes to evaluate the new ones as they come along. He owes that service to the owner, the architect, and the engineer.

He must know construction from experience. He must also know how to put ideas on paper so the reader will understand what he means the first time he reads a paragraph. When he fails to do this, he fails in his job. People today won't read a paragraph over and over to puzzle out the meaning. The best writing in the world is valueless if the reader fails to grasp the meaning, or fails to read it.

The journalist knows this trick, but few construction men are journalists. And still fewer journalists are construction men. Yet the specification writer must be both. The expression of an idea in the fewest possible words consistent with clarity is an important part of the business. Clarity and brevity go hand in hand. Many an idea has been buried in words until it is totally obscured.

The founders and members of the Construction Specifications Institute realize that only when an organization meets a need of an industry is it worth the effort needed to develop it. The organization that benefits only its members soon passes out of the picture. In the opinion of the founders and members of the Institute it fills a real need of the construction industry by making it possible for the specification writer to do a better job of informing the bidder exactly what he is supposed to furnish. In that way the whole industry is benefited, and the owner gets his job at a price that is right.

## AIA ARCHITECTS OF NORTHERN CALIFORNIA HONOR AWARDS PROGRAM

In commemoration of the 100th Anniversary of the founding of The American Institute of Architects of Washington, D. C., the 1957 Honor Awards Program for the five AIA Chapters of Northern California has been announced by Henry J. Shubart, architect of San Francisco. Chairman of the Public Relations Sub-Committee Honor Awards Committee.

In the belief that Architecture is a social art which can be best evaluated in terms identified with the individual member of society, the criteria proposed to be among those for the selection of distinguished works of architecture include:

1. Its contribution to the dignity, exaltation, comfort and inspiration of the people who use and inhabit it;

2. Its embodiment and projection of our changing cultural and aesthetic values;

3. Its mastery and recognition of our atomic-age technology coupled with firm discipline of spiralling costs;

4. Its appropriateness to the community of which it is a part, and its recognition of the forces of growth and decay.

Knowing that an architectural selection based on these criteria can best be made by representatives of the mainstreams of our world and culture today, the following have been selected to serve as members of the Jury of Award:

Architect and chairman, Pietro Belluschi, Dean, School of Architecture, Massachusetts Institute of Technology; Businessman, Edgar Kaufman, Jr., Member Board of Directors, Museum of Modern Art, New York; Writer-Critic, James M. Fitch, Professor, School of Architecture, Columbia University; Sculptor, Harry Bertoia, Architectural Sculptor; and Atomic Scientist, Dr. J. Robert Oppenheimer, Director, Institute of Advanced Studies, Princeton University.

Projects completed since January 1, 1950, designed by Members, Associate Members, and Junior Members of the Northern California, East Bay, Coast Valleys, Central Valley and Monterey Bay Chapters, or work constructed within the geographic area of the five participating Chapters by members of any other AIA Chapter.

Entries must be shipped to the Sheraton-Palace Hotel, San Francisco, for receipt not later than 5 p.m., March 1, 1957. Presentation shall be 5″ x 7″, or larger, mat finished photograph and plans mounted on 40″ x 40″ Masonite panels (maximum two per project).

Awards will be made in 1) Commercial and Industrial; 2) Public and Institutional; 3) Religious; 4) Residential; 5) Site Planning and development; 6) Interior Design; and 7) Architectural painting and sculpture.

Awards will be announced at a public showing and dinner in the Garden Court of the Sheraton-Palace Hotel on March 9, 1957.

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## WOODWORK INSTITUTE OF CALIFORNIA ANNUAL MEET

More than eighty members attended the 1957 Annual Meeting of the Woodwork Institute of California at the Hotel Statler, Los Angeles, last month.

First part of the program was devoted to a panel discussion of "Architectural Woodwork in your Future," panel members being; Dr. Fred Dickinson, Director of Forest Products Research Laboratory, Richmond, California; Dean A. B. Gallion, College of Architecture, University of Southern California, and Dr. C. Thomas Dean, Chairman, Department of Vocation and Industrial Education, Long Beach State College.

Dr. Dickinson opened the panel with the challenging statement that in the wood we work with, we have a material that is unique and possesses many advantages not held by other materials. He stated that a danger lies in the fact that we are presently using this material faster than we are growing it, although we are removing a growth of over mature wood which we must do in order to grow a second crop. "Even though there is sufficient material today, we are already experiencing some difficulty in selecting for species or grade or other particular characteristics," he said.

Dean Gallion pointed out that wood is unique in the field of materials, particularly because it was the first that man utilized, and has continued to dominate as a building material. He stated that modern architecture is going to exploit the materials available however, in spite of any sentimental attachments to wood. He stated that "architects are not concerned with the support of an industry nor the exploitation of any special material," but only the selection of those materials that will better suit the purpose, and in spite of the fact that wood has the capacity to serve contemporary architecture it will not be used unless something is done by the woodworking industry.

"As a part of the general immorality of our times, there appears to be an indifference toward the standard of quality," Dean Gallion stated. "Sometimes the only way the architect can use wood is by covering it up, and thus is prohibited from expressing the structure of the building with the materials from which it is built."

He emphasized the need for the industry to adopt standard stock detailing that is contemporary and

usable and that will permit the architect to express himself in the structure.

He called our attention to the increasing influence of Japanese architecture, especially on the West Coast, and stated that the detailing and the quality of the woodwork was the factor that made such architecture such a delight, and heartily recomended that "we travel in the direction of an improvement of quality standards," so that the architect is not required to resort always to some substitute material when wood should be used.

Dr. Dean gave a brief history of the beginning and the growth of vocational education, pointing out that the plan for vocational and industrial education under existing legislation must come from the State and from the local school system. "The vocational training program is paid for by industry, and therefore industry should assist in its direction," he said.

Dr. Dean cited the fact that 56.4% of high school graduates in California are not eligible to enroll in college and suggested that the W.I.C. organize strong advisory groups for the guidance of technical education in colleges and for work with the high school in the community.

In the question and answer period, the excellency of the panel members' preliminary talks was evidenced by the questions that followed.

### New Officers Elected

Following the luncheon, outgoing President Byron K. Taylor reopened the meeting by introducing Mr. James R. Pierce of Pacific Manufacturing Company of Santa Clara as the 1957 President of the Woodwork Institute of California, who then introduced the new officers and directors for the forthcoming year.

W. Perry Acuff of Western Lumber Company, San Diego, First Vice President; Jack Little of Union Planing Mill, Stockton, Second Vice President; Rex Sporleder of Hollenbeck Bush Planing Mill, Fresno, Treasurer; William Brockway of Rumple, Inc., Van Nuys; Ray Dreps of Watson-Dreps Mill & Cabinet Co., El Monte; Byron K. Taylor of Taylor Millwork & Stair Co., Los Angeles; Adolph Warvarovsky of Los Angeles Millwork Co., Los Angeles; C. E. Morrison of California Manufacturing Co., Sacramento; Seth Potter of Stockton Box Co., Stockton; Elmer Vivian of General Veneer Mfg. Co., South Gate; Stanley Gustafson of Sierra Mill & Lumber Co., Sacramento; E. F. Atkinson of Clinton Mill & Mfg. Co., Oakland; Owens Minton of Minton Lumber Co., Mountain View; and Tom Work of The Work Mill & Cabinet Co., Inc., Monterey.

Pierce presented a gift from the Woodwork Institute to Mr. Taylor in acknowledgement and appreciation of his untiring services on behalf of the W.I.C. during the past year.

Dr. Fred Dickinson of the Forest Products Research Laboratory as the principal speaker, in his talk, pointed out that wood plays an ever-effective and constant part in our everyday lives. "The complex and interesting chemical nature of wood is the cause of its value as a useful material, and still we fall far short of utilizing the full value of wood," he said. "Our future as a wood using industry lies in the second growth forests, and I am confident that we will maintain an ample supply. We must grow trees faster." He cited a station at Placerville, California, where they have been able by cross breeding and selection to grow trees twice as fast as normally. Such tree plantations are being set out throughout the State in an ever increasing number. He then emphasized the importance of better utilization—even to complete utilization.

Byron K. Taylor, outgoing President of the W.I.C., gave a report on where the W.I.C. had been, and especially where it is going, stating that our great challenge lies in the fact that this is a new era of new materials.

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## AMERICAN SOCIETY OF CIVIL ENGINEERS FREEMAN FELLOWSHIP

Qualified members of the American Society of Civil Engineers, or the American Society of Mechanical Engineers who have a worthy research program in hydraulics or related fields, may apply for Fellowship support to the Freeman Award Committee of ASCE in an amount not exceeding $3,000, depending on the need claimed in the application.

ASCE and ASME are each administrators of a Freeman Fund and the Freeman Award Committees make awards through the Societies in alternate years.

Conditions under which awards are considered include: Applicant must submit a study or research program covering a period of at least nine months starting in 1957; Applicant shall furnish evidence of his qualifications to carry out the proposed program; Applications must be submitted to the Freeman Award Committee c/o Secretary, American Society of Civil Engineers, 33 West 39th Street, New York 19, by March 1, 1957.

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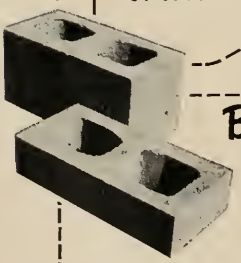

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## SAN DIEGO CHAPTER

John Bate, San Diego Port Director, was the principal speaker at the regular February meeting, taking as his subject "San Diego's Port and Its Future."

On February 21st, San Diego civic, governmental, industrial and Navy leaders joined with Chapter members in observing the Centennial Anniversary of The American Institute of Architects, at dinner in the El Cortez Hotel. Donald Beach Kirby, A.I.A., Regional Director of the Nevada-California-Hawaii District of the A.I.A., was the speaker.

## WASHINGTON STATE CHAPTER

Completing the third year of an unusual collaboration between a leading metropolitan newspaper and a professional group of architects, Seattle Architect Benjamine F. McAdoo was recently honored as designer of the winning entry in the A.I.A.-Seattle Times Home of the Month Competition for 1956.

The Home of the Month program was designed to emphasize good architectural design in building in the rapidly growing Pacific Northwest.

## SOUTHERN CALIFORNIA CHAPTER

Inspection of the Administration Building of the Lockheed Aircraft Service Corp'n of Ontario, designed by George Vernon Russell, and recognized as

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

LAS VEGAS: Walter F. Zick, President; Aloysius McDonald, Vice-President; Edward B. Hendricks, Sec.-Treas.; Directors: Walter F. Zick, Edward Hendricks, Charles E. Cox. Office of Secy., 106 S. Main St., Las Vegas.

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Producers' Council — Northern California Chapter (See Special Page)

Construction Specifications Institute—Los Angeles:

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Construction Specifications Institute—San Francisco:

Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Cooley, Secretary. Office of Secy., 1400 Egbert Ave., San Francisco 24.

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an outstanding example of industrial architecture featured the February meeting. In addition to Russell, J. K. Hull, President of Lockheed Aircraft Service and A. L. Pozzo of the Pozzo Construction Company described various features of the building.

## PASADENA CHAPTER

An Illustrated Lecture on the Descanso Gardens of La Canada, given by William L. Newman, Director of Public Relations, Park and Recreational Department of Los Angeles county, featured the February meeting. Newman was assisted by Mark Anthony, Assistant Superintendent of Descanso Gardens. Color slides of the gardens were shown.

## OREGON CHAPTER

Officers elected and installed to serve for the ensuing year included: Robert W. Fritsch, President: Earl P. Newberry, Vice-President; Charles G. Davis, Secretary; Thomas I. Potter, Treasurer, and Donald W. Edmundson, Director. The above officers and John K. Dukehart were elected to represent the Chapter at the Regional Convention at Gearhart Beach in the Fall.

The business meeting included a slide and exhibit on "Architectural Plastics."

## NORTHERN CALIFORNIA CHAPTER

Victor Gruen, Los Angeles architect and nationally known for his Fort Worth plan and other dramatic solutions of civic congestion and city planning, was the featured speaker at a joint meeting of the Chapter and San Francisco Museum of Art on February 21.

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## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

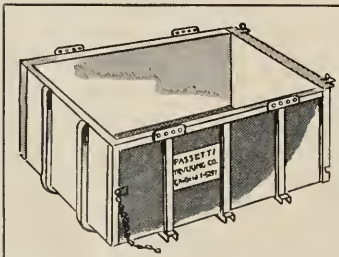
"Recent Development in Atomic Energy" was the subject of discussion at the February meeting with Lester C. Reukema, PhD, Professor of Electrical Engineering at the University of California, Berkeley, the principal speaker. Prof. Reukema reviewed the history of man's development of sources of power, from solid fuels to solar energy, and discussed the application of atomic energy for civilian use, forecasting many future developments.

Recent new members include: Mac Silvert, Elmer F. Steigelman, and Joseph F. Geyer. Junior Members, James M. Lenhart, Ray A. McCann, and Affiliate Members, Jack Streblow and Frank D. Gaus.

## AMERICAN INSTITUTE OF CONSULTING ENGINEERS

Edward H. Anson of New York has been elected president of the American Institute of Consulting Engineers, succeeding Carlton S. Proctor, New York. Anson is Senior Vice-president and Director of Gibbs & Hill, Inc.

The Institute was organized in 1910 to encourage the practice of engineering as a profession, promote ethical principles and procedures, advance the interest of engineers in all branches; but particularly those of consulting engineering, and to increase the usefulness of the profession to the general public.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## THE FEMINEERS OF SAN FRANCISCO

Mrs. Victor R. Sandner was elected President for 1957 at the annual meeting. Chosen to serve as officers with her were: Mrs. Burr H. Randolph, Vice-President; Mrs. Howard Schirmer, Secretary; Mrs. Fred Nicholson, Treasurer, and Mesdames F. W. Kellberg, John B. Harrington, Thomas Power, John F. Mitchell and John Fies as Directors.

The regular meeting of the Femineers was held in the Elks Club, San Francisco, February 20, with Carol Brumm reviewing a current book as the after-luncheon program.

March 2nd the Annual Dinner-Dance will be held in the Nob Hill Room of the Fairmont Hotel. A floor show will also be presented. Mrs. Arnold Olitt and Mrs. Chas. J. Lindgren are in charge of arrangements for the event.

## AMERICAN SOCIETY OF CIVIL ENGINEERS SAN FRANCISCO SECTION

"Modern Digital Computers" was the subject of the February meeting, with Dr. Melvin A. Shader, District Coordinator of Applied Science, International Business Machines, and Sam Osofsky, Supervising Highway Statistician of the State of California, Division of Highways, featured speakers.

Dr. Shader discussed the general aspects of computers while Osofsky presented examples of specific applications of computers to engineering problems including traverse, earthwork and structural computations.

## SAN FRANCISCO ENGINEERING COUNCIL ELECTS OFFICERS

Earl H. Thouren, representing the American Society of Civil Engineers, has been elected 1957 President of the San Francisco Engineering Council. Elected to

Barbara Counties Branch, Robert L. Ryan, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

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Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

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Society of American Military Engineers
Puget Sound Engineering Council (Washington)

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Society of American Military
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Col. Wm. F. Cassidy, President; Cmdr. W. J. Valentine, 1st Vice-President; Col. Edwin M. Eads, 2nd Vice-President; Bob Cook, Secretary; C. D. Koerner, Treasurer. Directors Col. J. A. Graf, Capt. A. P. Gardiner, P. W. Kohlhaas, C. G. Austin and C. R. Graff.

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serve with him were: Col. John A. Graf, representing the American Military Engineers, Vice-Chairman, and G. Arthur Sedgwick, representing the Structural Engineers Association of Northern California, Secretary-Treasurer.

## EAST BAY STRUCTURAL ENGINEERS ASSOCIATION

Bert Clausen has been elected President of the East Bay Structural Engineers Association for 1957. Other officers named to serve with Clausen were: Mike Superak, Vice-President; Mac Graham, Secretary-Treasurer.

## AMERICAN SOCIETY OF CIVIL ENGINEERS LOS ANGELES SECTION

Latest developments in an attempted solution of California's Water Problems, will be the major subject of discussion at the regular March meeting of the Section, scheduled for March 13th in the Roger Young Auditorium.

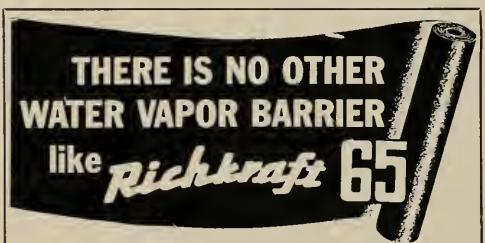
Principal speaker will be Harold W. Kennedy, County Counsel of the County of Los Angeles, who is eminently qualified to speak on this subject, having been a leader in the efforts to satisfy Southern California's future water needs for the past thirty years. He will also discuss a number of 1957 legislative matters of interest to Southern California residents.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

A. L. Parme, Structural Engineer, Structural & Railway Bureau, Portland Cement Association, Chicago, and Richard R. Bradshaw, Structural Engineer, and Ralph Van Cleave, Contractor, discussed Thin Shell Construction at the February meeting, held February 6th in the Roger Young Auditorium, Los Angeles.

Speakers emphasized that it is necessary to educate our public of the safety, strength, beauty, economy and other advantages of this type of construction. In fact, the system is so new it is also necessary to educate the building crafts, contractors, engineers and architects of the advantages of it.

Parme told how he was invited to a project in Texas where the forms were being removed. (Contractors doing their first project in Thin Shell consider the form removal and deflection checking an event of renown.) However, Parme explained the building was designed for 15 pounds per square foot snow load, a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125 mile per hour wind load and a temperature difference of 120 degrees. There has never been a snow of this magnitude on record for this area of Texas and possibility of excitement incidental to the removal of these forms was non-existent for such a structure is very safe and strong and will be subject to little deflection. Usually about 1 to 2 inches of deflection is noticed for spans below 160 feet.

Parme, by means of a collection of film strips, showed the evolution of shell design. Older designs using heavy rib thick shells and much reinforcing steel. Late designs use lighter ribs at greater spacing, thin ribs from 1½ to 3½" and very little reinforcing.

The most common types of thin shell roofs are, first, the Hyperbolic Paraboloid and, second, the Cylindrical Concrete shells. Each type has its advantages; the latter is sometimes chosen for its architectural value, especially when used in repetition and the former for its economy.

### ENGINEERS OPEN OFFICES

Milton G. Leong and Associates recently announced the opening of offices in the American Trust Company Building, 2140 Shattuck Avenue, Berkeley, California, and in the Professional Arts Building, 333 Maryland Street, Vallejo, California, for the general practice of Civil and Structural Engineering.

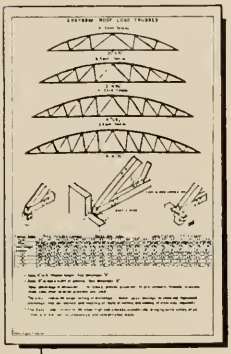
## A NEW CENTURY BECKONS

(From Page 21)

environment are infinitely more complex today than at any time in the past century. One hundred years ago, the architect was concerned principally with the problem of providing shelter for a pioneer society which was expanding its boundaries and bridging its frontiers.

"Today, the architect must consider, simultaneously, man's physical environment in relation to his new social aspirations and spiritual needs; to a host of new contrivances which afford him new comfort and leisure time; to new problems of traffic flow, land use, and urban congestion; even to the problem of shielding him, not from the elements alone, but from the hazards of a world whose skill at making weapons has outstripped its ability to live without them.

"In the contrast provided by these two eras, we may see, if only dimly, the enormity of the task we face. Our vast knowledge of the nature of matter must be matched by an equivalent understanding of the nature of man. The architect can and must contribute to a closure of this gap in knowledge. This, then, is the aim of the Centennial Program of the American Institute of Architects."

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Nipple and adapter allow placing inlet at either side or back.

### AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Two important events have been scheduled for the West Coast in 1957 by The American Society of Mechanical Engineers.

First is the semi-annual meeting which will be held in San Francisco, June 9-13, at the Sheriton-Palace Hotel, and second is the Applied Mechanics Conference which will follow immediately, June 14-16, at the University of California, Berkley.

### CONVAIR AIRCRAFT EXPANDS SAN DIEGO

Convair Division of General Dynamics, San Diego, recently acquired a 10 year lease on a site in Rose Canyon in northern San Diego, and will construct a new multi-million dollar, 1,000,000 sq. ft. central warehouse and materials depot, with both rail and truck access.

Sixteen football playing fields could be sheltered under the roof of the 500,000 sq. ft. warehouse, largest steel structure of its kind in the West.

The new facilitiy will be built by Stewart-Southern Inc., a joint venture of the James Stewart Company and the Southern Engineering and Construction Company of Long Beach.

### J. C. EPPERSON CO. APPOINTED SALES REP.

The J. C. Epperson Company, 721 Bryant Street, San Francisco, has been appointed exclusive sales representative in Northern California and Nevada for Honeylite, a light difusing aluminum honeycomb produced by Hexcel Products, Inc., of Oakland, California.

John C. Epperson, electrical engineer and head of the sales firm, and Ray Cook, the company's illuminating engineer, will offer sales engineering service for the lighting material.

### CENTRAL ELECTRIC OPENS SAUSALITO BRANCH OFFICE

The Central Electric Company of San Francisco, has opened a third branch office in Sausalito, to better serve Marin county construction.

Rod Newman has been appointed office manager of the new facility. Other branch offices of the firm which will observe its 50th birthday this year, are located in Redwood City and Palo Alto.

### SENIOR BOYS CAMP PROJECT

Architect Chester H. Treichel, 696 Cleveland Avenue, Oakland, is preparing drawings for construction of a $250,000 Senior Boys' Camp for the Juvenile Probation Department of the County of Alameda.

The project consisting of five one-story buildings of concrete block and frame construction, will be built at the corner of 150th Ave. and Foothill Blvd.

### FRANK B. MILLER DOOR PRESIDENT

Frank B. Miller, Burbank, has been elected president of the Sliding Glass Door and Window Institute of California and Murrell Spence, first vice-president.

Other officers who will serve during the ensuing year include: Lauro Bourland, secretary; Charles Walker, treasurer, and George Radford, second vice president. William Watkins, pioneer in the sliding glass door field was named honorary vice-president.

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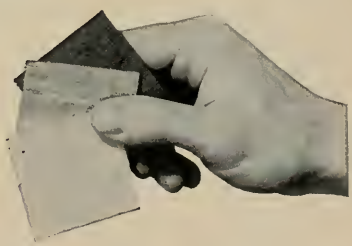

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### IDEAL TO BUILD NEW CEMENT PLANT

Engineer Vern E. Adler Company of Chicago, Ill., is working on plans for construction of a new cement plant to be built in Redwood City, California, for the Ideal Cement Company, Pacific Division.

### VERNON S. YALLOP RETIRES FROM A&E

Vernon S. Yallop, for more than twenty years manager of the Architects Reports division of Architect & Engineer, Inc., San Francisco, publishers of Architect & Engineer magazine, retired on January 15th to devote his full time to numerous hobbies. He will however, represent Architects Reports in the Oakland and East Bay area.

Yallop was succeeded by Archie MacCorkindale, San Francisco, who has been serving as assistant manager of Architects Reports for the past several months.

### KRAFTILE PATIO CONTEST WINNERS ARE ANNOUNCED

The large list of entries in Kraftile Company's Second Annual Patio Contest, have been reviewed by a special Board of Judges comprising C. Mason Whitney, past president California Association of Landscape Architects; R. W. Harrington, manager, Clay Brick and Tile Association, and Robert Johnson, advertising account executive with the Ryder & Ohleyer Advertising Agency of Oakland.

First Award was given A. Iantasca of San Jose in the over 150 sq. ft. classification; Lee Ackerman of Mill Valley was awarded first place in the 50 to 150 sq. ft. classification.

In commenting on the event C. W. Kraft, president of Kraftile Company, said "The number of entries this year was substantially greater than last time and we believe that the contest should be repeated as an annual integrated part of our own program."

Although contest rules permitted entry of professionally installed patios, most entries were self-installed and the judges' decision was a difficult one due to surprisingly high standards of beauty and originality.


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### WILLIAM R. MASON PROMOTED BY ARCADIA METAL PRODUCTS

William R. Mason has been promoted to the post of chief engineer of Arcadia Metal Products, according to an announcement by Henry E. North, Jr. firm president.

Mason has been serving as production engineer and in his new duty will be responsible for product sign development, production engineering, quality control and plant engineering. He is a graduate of the University of Washington with a degree in civil engineering, and prior to becoming associated with Arcadia in Fullerton was with the US Navy Civil Engineering Research and Evaluation Laboratory at Port Hueneme.

### PUBLIC HOUSING PROJECT

Architect Hans Wallner, 3260 E. Florence Ave., Huntington Park, has completed drawings for construction of thirty 2, 3, 4 and 5 bedroom, concrete block dwelling units in Calexico for the Housing Authority of the City of Calexico.

Each unit will contain 750 to 1400 sq. ft. area, rock roofing, aluminum sash, concrete slab and asphalt tile covered floors, interior plaster, forced air type wall furnace, 1 to 2½ baths and tub showers, carports, administration and maintenance building to the thirty units.

### MEDICAL BUILDING

Architect J. Richard Shelley, 3401 Colorado St., Long Beach, is completing plans for construction of a frame, stucco and transite board medical building in Santa Fe Springs, for the John S. Griffith Properties.

The building will contain 7000 sq. ft. area, composition and gravel roof, concrete and asphalt tile floors, drywall interior, built-up beams, exposed roof deck, plate glass, air conditioning, flush and fluorescent lighting and acoustical tile.

### PALOS VERDES CITY HALL

Architect Carrington H. Lewis, 405 Via Chico, Palos Verdes Estates, has completed preliminary plans for construction of a 2-story and basement City Hall, including a fire station and police station, in Palos Verdes Estates for the City of Palos Verdes Estates.

The building will contain 14,000 sq. ft. area, plus 3800 sq. ft. of basement; first floor reinforced brick; second floor steel and plaster, steel trusses, wood roof framing, mission tile roofing, reinforced concrete slab floors.

### DON L. GEISERT NAMED BY REYNOLDS METAL CO.

Don L. Geisert has been named western sales manager of monumental and commercial construction markets by the Industrial Parts Division of Reynolds Metals Company, according to A. H. Williams, general sales manager.

Geisert, active in the construction field and nonferrous metals industry on the Pacific Coast for the past 18 years, will have general offices in San Francisco. He was one of the organizers of the Western Architectural Metal Manufacturers and served as secretary-treasurer of the organization.

### H. J. WALLACE SPEAKER

H. J. Wallace, vice-president, sales, National Tube Division of the United States Steel Corpn., was one of the principal speakers at the recent meeting of the Alabama-Mississippi Division, Mid-Continent Oil & Gas Association in Mobile, Alabama.

Speaking on the subject "Steel for the Oil and Gas Industry", Wallace explained his firm's proposed expansion to meet the Oil and Gas Industry's requirements for expansion and defense.

### ARCHITECT BECKET EXPANDS SERVICES

Creation of a new department of Public Relations for Welton Becket, FAIA, and Associates, Los Angeles, has been announced.

In announcing the new activity, Becket stated "Architectural and engineering problems of today are so complex that it takes a highly-skilled team of experts to handle them, and our solution is to have all the experts on my own staff, making them readily available, better briefed on the subjects as a whole, and thus able to serve our clients with greater efficiency."

Jack Whitehouse has been named director of the department.

### CATALYTIC REFORMER FOR TACOMA

Holmes & Narver, Inc., Los Angeles engineers and constructors, have been named by Dr. Ernest E. Lyder, president of the U. S. Oil & Refining Co., to handle design, engineering and construction of a new 2500 to 3000 bbl. per day capacity catalytic reformer at the company's Tacoma, Washington, plant.

Costing approximately $750,000, work will start early in 1957 with completion slated for May 1957.

### ARCHITECTS NAMED TO HOME PLANNER GROUP

A number of "western" architects have been appointed members of a builder-architectural team for planning homes to be built in the Homestyle Center, a project initiated by the Home Research Foundation and located on a 60-acre site at Grand Rapids, Michigan.

Appointments by Joseph Haverstick, president of the National Association of Home Builders, includes architects Kazumi Adachi and A. Quincy Jones & Frederick E. Emmons of Los Angeles; Wurster, Bernardi and Emmons, San Francisco; and Zema & Baumgardner of Seattle, Washington.

The object of the Center is to combine the talents of outstanding architects, builders, interior designers, and landscape architects working together to design each home constructed at the Center, and to provide outstanding examples of the finest and latest homes that professional and industrial teamwork can provide.

### CARLETON P. ADAMS JOINS GLADDING, McBEAN & CO.

Carleton P. Adams has been appointed manager of advertising and public relations for Gladding, McBean & Company, according to an announcement by C. W. Planje, president.

Adams was recent West Coast public relations representative for The Yale & Towne Mfg. Co., and has had extensive experience in newspaper, agency and industrial advertising, having served as a director of the Eastern Industrial Advertisers Association and authored a number of articles on avdertising and public relations subjects.

### THREE PAROCHIAL NEVADA SCHOOLS

The architectural firm of Worsick and Bruner, 209 S. 3rd St., Las Vegas, Nevada, is preparing preliminary plans for construction of parochial schools in Ely, Carson City, and Las Vegas, Nevada, for the Roman Catholic Biship of Reno.

Construction will be concrete block, asbestos shingle roof, asphalt and vinyl tile floors, steel sash, ceramic tile, hot water heating in Ely and Carson City schools, forced air heating and cooling Las Vegas school. The estimated cost of the work is: Las Vegas, $400,000; Ely, $200,000, and Carson City, $100,000.


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## STANFORD REPORT—Rapid Transit

(From Page 10)

program may be made on grounds of national defense, and savings in the freeway program into which federal funds are to flow.

### SECTION VII
### SALIENT POINTS OF THE REPORT

The proposed system is financially feasible without federal and state aid, except that state aid in acquiring rights-of-way promptly would save millions of dollars.

The financial problems could be solved by conventional methods in use in the United States, but perhaps with different emphasis as to methods from that found elsewhere.

A regional organization is needed with a broad grant of authority over service areas, routes, standards of service, and rates.

A public regional organization, preferably a district, is suggested, with full taxing power, but coordinated with regional and local functions of government.

Complete administrative authority should be vested in a well-paid professional transit operator as general manager.

The most promising types of taxing methods are property taxes, with an over-all nine-county rate and an additional rate in a transit zone within service distance of the transit's lines, and a retail sales tax of not over ½ of 1 per cent. In addition the tolls of the San Francisco-Oakland Bay Bridge might be appropriate for support of the transit program, particularly since the transit system could postpone the need for a southern crossing of the Bay for many years.

The studies herein are not designed to arrive at decisions, but to furnish members of the commission with information and analysis to assist them in formulating a program of action.

The governing board should have wide latitude to meet financial problems as they arise. This would be preferable, if accountability can be secured, to having the powers and duties of the management determined in detail by law.

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### AIA ANNOUNCES PLANS FOR THE R. S. REYNOLDS MEMORIAL AWARD

The American Institute of Architects has announced plans for administration of the R. S. Reynolds Memorial Award, a $24,000 annual prize to be awarded the architect making the "most significant contribution to the use of aluminum" in the building field.

Establishment of the international award in memory of the founder of Reynolds Metals Company, was recently announced by R. S. Reynolds, Jr., president of the company.

Architects practicing in any nation are eligible, and membership in a professional society is not a requirement. A five man jury will be named to screen nominations and select the winner of the award. Nominations may be submitted by the architect himself, by his firm, by the owner of the building or structure involved, or by others. The award may be made for a structure of any classification; 1 structure, or a group of related structures forming a single project completed prior to January 1, 1957.

**ENGINEER MOVES OFFICES:** H. C. Vensano has moved his offices from San Francisco, to 1646 Gover Lane, San Carlos.

*PHOTO CREDITS: Douglas M. Simmonds, Cover, pages 11, 13, 14, 16, 17; Palmer & Krisel, Architects, pages 12, 15; Dr. W. Schweisheimer, pages 18, 19, 20; Eddie Hoff Photo's, page 22; San Francisco Chronicle, page 23.*

# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

THE GENERATION OF ELECTRICITY BY WIND POWER. By E. W. Golding, M.Sc.Tech., M.I.E.E., M.Amer.I.E.E., F.R.G.S. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $12.00.

The author has played an important part in the study of the possibilities of using wind power for the generation of electricity, both in Britain, where he is in charge of the Rural Electrification and Wind Power department of the Electrical Research Association, and in other countries on behalf of their governments and of the United Nations and its specialized agencies.

The book deals with the important matter of wind surveys for the choice of suitable sites, with the structure and behaviour of the wind and with techniques for measuring it. The book will be of great interest to all concerned with the provision of electric power, as well as to engineering students in universities and technical colleges.

WORLD CONFERENCE ON EARTHQUAKE ENGINEERING — 1956. Earthquake Engineering Research Institute, Room 1039, 465 California Street, San Francisco 4. Price $8.50 postpaid.

This book of over 500 pages contains the 42 papers presented at the Berkeley, June 1956, first world-wide conference which brought together scientists and engineers from the major seismic areas of the world in order that their knowledge of earthquakes and developments in the science and art of earthquake-resistant design and construction might be pooled for the benefit of all mankind.

Technical papers are grouped under the general subjects of earthquake ground motion, analysis of structural response, development of aseismic construction, earthquake effects on soils and foundations, design of earthquake-resistant structures, summary of present knowledge, and panel discussions. The book will long be recognized as a principal reference in the field of earthquake engineering.

ENGINEERING REGISTRATION EXAMINATION BOOK—California. By August E. Waegemann, 2833 Webster St., San Francisco 23. Price $7.00.

A new enlarged and revised book covering examinations given by the State of California for the registration of Civil Engineers and Engineers in training. The Examinations given between 1940 and July of 1949, include unofficial solutions of the problems by the author and the balance of the examinations from July, 1949 to and including June 1956 include the problems only. All options for the Civil Engineers examinations are included together with the Engineers in training examinations for all branches of engineering.

## NEW CATALOGUES AVAILABLE

***Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.***

**"TEMPO" cabinet hardware.** Architects looking for ways to add appeal to kitchens, bathrooms and built-ins should view the Washington Line cabinet hardware brochure; gives color description for hundreds of brilliant harmonics of color combinations. Free copy write DEPT-A&E, Washington Steel Products, Inc., 1940 E. 11th St., Tacoma 2, Washington.

**Corrosion-resistant and weathersealing materials.** How to lick industrial corrosion problems and permanently weatherseal all types of building materials are described in new 12-page reference catalog; written for architects and corrosion, construction and chemical engineers with factual data on protective coatings and synthetic rubber compounds; protection for metal, masonry and wood against acids, alkalies, alcohol, oils, gasoline, solvents, salts and water; also describes how metal, masonry and glass are given permanent weathertight seal. Free copy write DEPT-A&E, David E. Long Corp., 220 E. 42nd St., New York 17, N. Y.

**Typical lumber designs.** New 1957 edition (AIA File No. 19-B) with quantities and material lists for light and heavy

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**Venturafin unit heater handbook.** New vest-pocket edition of the Venturafin Unit Heater Handbook contains 64 pages (3½ x 5¾"), illustrated; contains specifications and operating characteristics as well as installation and application data for the complete line; included are such data as capacity tables, dimensions, engineering specifications, external duct-work suggestions, mounting heights, piping diagrams, pipe sizes, sound ratings and wiring diagrams; easily understood line drawings for clarification of data presented. Write DEPT·A&E, American Blower Corpn., Detroit 32, Michigan.

**Reynolds Aluminum Air Duct Guide.** Up-to-date and complete engineering treatise (AIA File No. 30-D-4); aluminum's advantages for air ducts, explanation of recommended alloys and tempers with their properties, section on prefabricated ducts, details of search recommendations for noise control in ductwork, and five specific areas of other information making it in reality 6 complete guides in one. For free copy write DEPT·A&E, Reynolds Metals Co., 2500 S. S. 3rd St., Louisville 1, Ky.

**Electric forced air heating.** New brochure (AIA File No. 31-K-3) describes and illustrates the electric forced air heating system, with counter-flow principle called "Electrend"; diagrams of typical installations, photos of product, and specifications chart; for all types of construction. Free copy write DEPT·A&E, Hill and Deitrick, 417 East 10th St., Oakland 6, Calif.

**New "Ray-vec" electric heaters.** Colored brochure illustrates and describes this line of electric heaters for instant heat in small rooms; includes specifications chart. Free copy write DEPT·A&E, Hill and Deitrick, 417 E. 10th St., Oakland 6, Calif.

**Interior metal trim.** 1957 Revised catalog (AIA File No. 20-B-1) describes many practical designs, sizes and weights of wall units, window stools, metal bases, stop, cove and picture molds, chair rails and blackboard trim; installation detail drawings, specifications. 20-page Catalog free, write DEPT·A&E, Inland Steel Products Co., P. O. Box 393, Milwaukee, Wisconsin.

**Fireplaces of stone.** New brochure by Building Stone Institute (AIA File No. 22-A-2), illustrates the use of stone in various types of fireplaces in the home. Free copy write DEPT·A&E, Building Stone Institute, 1696 Summer Street, Stamford, Conn.

**Power roof ventilators.** New 8-page, 2-color, illustrated catalog describes redesigned line of power roof ventilators; construction, operation, and design features; performance data, fan speeds and motor horsepower, certified delivery ratings; intake and duct area values; installation drawings. Free copy write DEPT·A&E, American Blower, Detroit 32, Michigan.

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Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
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Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

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| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

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|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

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| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |

**Sheathing Papers—**

| | |
|---|---|
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |

**Felt Papers—**

| | |
|---|---|
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |

**Roofing Papers—**

| | |
|---|---|
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

**CONCRETE AGGREGATES—**

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $2.70 | $3.45 |
| Top Sand | 2.80 | 3.55 |
| Concrete Mix | 2.75 | 3.50 |
| Crushed Rock, ¼" to ¾" | 3.10 | 3.85 |
| Crushed Rock, ¾" to 1½" | 3.10 | 3.85 |
| Roofing Gravel | 2.90 | 3.65 |
| River Sand | 2.95 | 3.45 |
| Sand— | | |
| Lapis (Nos. 2 & 4) | 3.35 | 4.10 |
| Olympia (Nos. 1 & 2) | 2.95 | 3.45 |

Cement—
Common (all brands, paper sacks), Per Sack, small quantity (paper) $1.25
Carload lots, in bulk, per bbl. 3.59
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.00 per bbl. f.o.b. warehouse or $5.40 delivered.
Cash discount on L.C.L. 2%
Trinity White, Medusa White, Calaveras White — 1 to 100 sacks, $3.50 sack; warehouse or del.; $11.40 bbl. carload lots.

**CONCRETE READY-MIX—**

Delivered in 5-yd. loads: 6 sk. in bulk $14.50
Curing Compound, clear, drums, per gal. 1.03

**CONCRETE BLOCKS—**

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .21 | $ .21 |
| 6x8x16-inches, each | .26 | .26 |
| 8x8x16-inches, each | .30 | .30 |
| 12x8x16-inches, each | .41 | .41 |
| 12x8x24-inches, each | — | .64 |

Aggregates—Haydite or Basalite
¾-inch to ⅜-inch, per cu. yd. $7.75
⅜-inch to ⅛-inch, per cu. yd. 7.75
No. 6 to 0-inch, per cu. yd. 7.75

**DAMPPROOFING and Waterproofing—**

Two-coat work, $9.00 per square.
Membrene waterproofing—4 layers of saturated felt, $13.50 per square.
Hot coating work, $6.00 per square.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c e cubic yd. and up.

**ELECTRIC WIRING**—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

**ELEVATORS—**

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

**EXCAVATION—**

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

**FIRE ESCAPES—**

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

**FLOORS—**

Asphalt Tile, ⅛ in. gauge 22c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.50 per sq. yd.
Battleship Linoleum—$5.00 sq. yd. & up laid.
Terazzo Floors—$2.00 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—20c to 35c.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | 33/32x2¼ | ½x2 | ⅜x2 | ⅝x2 |
|---|---|---|---|---|
| Clear Otd., White | $425 | $405 | $ | $ |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 33/64 x 2¼ | 390.00 | 381.00 |
| 33/64 x 2¾ | 375.00 | 355.00 |
| 33/64 x 3¼ | 395.00 | 375.00 |
| 33/64 x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| 33/64 x 2¼ First Grade | $390.00 |
| 33/64 x 2¼ 2nd Grade | 365.00 |
| 33/64 x 2¼ 2nd & Btr. Grade | 375.00 |
| 33/64 x 2¼ 3rd Grade | 240.00 |
| 33/64 x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| 33/64 x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

**GLASS—**

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75. | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| ⅛ in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| ¼ in. Heat Aborbing Wire | 72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| ¼ in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| ¼ in. Rough | .75 per □ ft. |
| Glazing of above additional $ is to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

**HEATING—Installed**

**Furnaces—Gas Fired**

| | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |

**Water Heaters—5-year guarantee**

| | |
|---|---|
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x8' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

Flooring—

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-S1S ..... $150.00
½-inch, 4.0x8.0-S1S ..... 200.00
¾-inch, per M sq. ft. ..... 260.00
Plyform ..... 160.00

Shingles (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $6.00 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.00 per square.
Pressure Treated Lumber—
Salt Treated ..... Add $35 per M to above
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., upper $12 to $15; lower $14 to $15.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .80 |
| Three-coat work | per yard | 1.20 |
| Cold water painting | per yard | .35 |
| Whitewashing | per yard | .20 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Wholesale Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

Pioneer Dry White Lead—Litharge—Dry Red Lead
Red Lead In Oil
Price to Painters—Price Per 100 Pounds

| | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $.... | $.... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

6-inch ..... $2.50 lineal foot
8-inch ..... 3.00 lineal foot
10-inch ..... 4.00 lineal foot
12-inch ..... 5.00 lineal foot

## PLASTER—

Neat well, per ton delivered in S. F. in paper bags, $17.60.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.50 |
| Keene cement on metal lath | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.50 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.25 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.50 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Rock or Grip Lath—⅛"—32c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply .... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 14.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Asbestos Shingles, $27 to $35 per sq. laid ½ to ¾ x 25" Resawn Cedar Shakes.
10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes
10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes,
10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .26
Standard, 6-in. ..... .46
Standard, 8-in. ..... .66
Standard, 12 in. ..... 1.30
Standard, 24-in. ..... 5.41
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless,
(unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. ... 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |
| 1 ton to 5 tons, deduct 25c. | |

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.85 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.85 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.50 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜" ..... $ .18 - $ .35 sq. yd.
Light shades slightly higher.
Cork Tile—$ .70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

| Furring Tile | F.O.B. S. F. |
|---|---|
| Scored | |
| 12 x 12, each | $ .17 |

| Krattile: Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x ⅞-in., plain | $ .28 | $ .253 |
| 6 x 12 x ⅞-in., plain | .295 | .265 |
| 6 x 6 x ⅞-in., plain | .32 | .287 |

Building Tile—
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00
Hollow Tile—
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

50c per square foot end up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# ARCHITECT AND ENGINEER
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

EXPLANATION—Building and construction materials are shown in major classified groups for general identification purposes with names and addresses of suppliers of materials listed in detail under group classification where name first appears—main offices are shown first with branch or district offices following. The numeral appearing in listings *(3) refers to the major group classification where complete data on the dealer, or representative, may be found.

**ADHESIVES (1)**
Wall and Floor Tile Adhesives
THE CAMBRIDGE TILE MFG. CO. *(35)

**AIR CONDITIONING (2)**
Air Conditioning & Cooling
UTILITY APPLIANCE CORP.
Los Angeles 58: 4851 S. Alameda St.
San Francisco: 1355 Market St., UN 1-4908

**ARCHITECTURAL PORCELAIN ENAMEL (2a)**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard & Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER (3)**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611
ROBCO OF CALIFORNIA, INC.
San Francisco: 260 Kearny St., GA 1-6720
Los Angeles: 2366 Venice Blvd., RE 1-4067
Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station
Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339
Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING (4)**
CROCKER FIRST NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BATHROOM FIXTURES (5)**
Metal
THE CAMBRIDGE TILE MFG. CO. *(35)
DILLON TILE SUPPLY COMPANY
San Francisco: 252 12th St., HE 1-1206
Ceramic
THE CAMBRIDGE TILE MFG. CO. *(35)

**BRASS PRODUCTS (6)**
GREENBERG'S, M. & SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4: 1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK (7)**
Face Brick
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
REMILLARD-DANDINI CO.
San Francisco 4: 400 Montgomery St., EX 2-4988

**BRONZE PRODUCTS (8)**
GREENBERG'S, M. & SONS *(6)
MICHEL & PFEFFER IRON WORKS *(38)

**BUILDING PAPERS & FELTS (9)**
ANGIER PACIFIC CORP.
San Francisco 5: 55 New Montgomery St., DO 2-4416
Los Angeles: 7424 Sunset Blvd.
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY
San Francisco 5: 55 New Montgomery St., EX 2-3066
Chicago, Ill.: 205 West Wacker Drive

**BUILDING HARDWARE (9a)**
THE STANLEY WORKS
San Francisco: Monadnock Bldg., YU 6-5914
New Britain, Conn.

**CABINETS & FIXTURES (9b)**
FINK & SCHINDLER CO., THE:
San Francisco: 552 Brannan St., EX 2-1513

**CEMENT (10)**
IDEAL CEMENT COMPANY (Pacific Division)
San Francisco 4: 310 Sansome St., GA 1-4100
PACIFIC COAST AGGREGATES, INC. *(11)

**CONCRETE AGGREGATES (11)**
Ready Mixed Concrete
PACIFIC COAST AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
Lightweight Aggregates
AMERICAN PERLITE CORP.
Richmond: 26th & B St. - Yd. 2, RI 4307

**CONCRETE ACCESSORIES (11a)**
Screed Materials
C & H SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE. 1-1345

**CONSTRUCTION SERVICES (11a)**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF (11b)**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS (12)**
THE BILCO COMPANY
New Haven, Conn.
Electric Doors
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089
Folding Doors
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971
Hollywood Doors
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas
Screen Doors
WEST COAST SCREEN DOOR CO.
(See above)

**FIRE ESCAPES (13)**
MICHEL & PFEFFER IRON WORKS *(38)

**FLOORS (15)**
Hardwood Flooring
HOGAN LUMBER COMPANY
Oakland: Second and Alice Sts., GL 1-6861
Floor Tile
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
Floor Tile (Ceramic Mosaic)
THE CAMBRIDGE TILE MFG. CO. *(35)
Floor Treatment & Maintenance
HILLYARD SALES CO. (Western)
San Francisco: 470 Alabama St., MA 1-7766
Los Angeles: 923 E. 3rd, TR 8282
Seattle: 3440 E. Marginal Way
Diversified (Magnesite, Asphalt Tile, Composition, Etc.)
LE ROY OLSON CO.
San Francisco 10: 3070 - 17th St., HE 1-1088
Sleepers (composition)
LE ROY OLSON CO.

**GLASS (16)**
W. P. FULLER COMPANY
San Francisco: 301 Mission St., EX 2-7151
Los Angeles, Calif.
Portland, Ore.

**GRANITE (16a)**
PACIFIC CUT STONE & GRANITE CO.
414 South Marengo Ave., Alhambra, Calif.

**HEATING (17)**
S. T. JOHNSON CO.
Oakland 8: 940 Arlington Ave., OL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia 8, Pa.: 401 N. Broad St.
SCOTT COMPANY
San Francisco: 243 Minna St., YU 2-0400
Oakland: 113 - 10th St., GL 1-1937
San Jose, Calif.
Los Angeles, Calif.
UTILITY APPLIANCE CORP. *(2)
Electric Heaters
WESIX ELECTRIC HEATER CO.
San Francisco 5: 390 First St., GA 1-2211
Los Angeles: 520 W. 7th St., MI 8096
Portland: Terminal Sales Bldg., BE 2050
Seattle: Securities Bldg., SE 5028
Spokane: Realty Bldg., MAdison 6175
San Diego: 514 Spreckels Bldg., BEImont 4-6082
Designer of Heating
THOMAS B. HUNTER
San Francisco 4: 41 Sutter St., GA 1-1164

**INSULATION AND WALL BOARD (18)**
LUMBER MANUFACTURING CO.
San Francisco: 225 Industrial Ave., JU 7-1760
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY *(19)
WESTERN ASBESTOS COMPANY
San Francisco: 675 Townsend St., KL 2-3868
Oakland: 251 Fifth Avenue, GL 1-2345
Stockton: 733 S. Van Buren, ST 4-9421
Sacramento 1331 - T St., HU 1-0125
Fresno: 434 - P St., FR 2-1600

**IRON—Ornamental (10)**
MICHEL & PFEFFER IRON WORKS, INC. *(13)

**INTERCEPTING DEVICES (10a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**LANDSCAPING (20)**
Landscape Contractors
HENRY C. SOTO CORP.
Los Angeles: 13,000 S. Avalon Blvd., ME 4-6617

**LIGHTING FIXTURES (21)**
SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER (22)**
Shingles
LUMBER MANUFACTURING CO. *(18)

**METAL GRATING (22a)**
KLEMP METAL GRATING CORPN.
6601 S. Melvina, Chicago 38, Ill., POrtsmouth 7-6760

**METAL FRAMING (22b)**
UNISTRUT SALES OF NORTHERN CALIFORNIA
Berkeley: 1000 Ashby Ave., TH 3-4964

**MARBLE (23)**
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles 4: 3522 Council St., DU 2-6339

**MASONRY (23a)**
GENERAL CONCRETE PRODUCTS, INC.
Van Nuys, 15025 Oxnard St., ST 5-1126 & ST 7-3289

**METAL LATH EXPANDED (24)**
PACIFIC COAST AGGREGATES, INC. *(11)

**MILLWORK (25)**
FINK & SCHINDLER, THE; CO: *(9b)
LUMBER MANUFACTURING COMPANY *(18)
MULLEN MANUFACTURING COMPANY
San Francisco: 60-80 Rausch St., UN 1-5815
PACIFIC MANUFACTURING COMPANY
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, SC 607
Los Angeles, 6820 McKinley Ave., TH 4196

**PAINTING (26)**
W. P. FULLER COMPANY *(16)
Paint

**PLASTER (27)**
Interiors - Metal Lath & Trim
PACIFIC COAST AGGREGATES, INC. *(11)
Exteriors
PACIFIC PORTLAND CEMENT COMPANY *(28)

**PLASTIC CEMENT (28)**
IDEAL CEMENT COMPANY
San Francisco: 310 Sansome St., GA 1-4100

**PLUMBING (29)**
THE HALSEY TAYLOR COMPANY
Redlands, Calif.
Warren, Ohio
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
THE SCOTT COMPANY *(17)
HAWS DRINKING FAUCET COMPANY
Berkeley 10: 1435 Fourth St., LA 5-3341
CONTINENTAL WATER HEATER COMPANY
Los Angeles 31: 1801 Pasadena Ave., CA 6178
SECURITY VALVE COMPANY
Los Angeles 31: 410 San Fernando Rd., CA 6191

**PUMPING MACHINERY (29)**
SIMONDS MACHINERY COMPANY
San Francisco: 816 Folsom St., DO 2-6794
Los Angeles: 455 East 4th St., MU 8322

**PRESS (Punch) (29a)**
ALVA F. ALLEN
Clinton, Missouri

**RANGE-REFRIGERATOR (29a)**
Combinations
GENERAL AIR CONDITIONING CORPN.
Los Angeles 23: 4542 E. Dunham St.
San Francisco: 1355 Market St., KL 2-2311, Ext. 104

**RESILIENT TILE (30)**
LE ROY OLSON CO. *(15)

**ROOF TRUSSES (30a)**
EASY BOW ENGINEERING & RESEARCH CO.
13th & Wood St., Oakland, Cal., GLencourt 2-0805

**SAFES (30a)**
HERMANN SAFE CO.
San Francisco, 1699 Market St., UN 1-6644

**SEWER PIPE (31)**
GLADDING, McBEAN & CO. *(3)

**SHADES (31a)**
SHADES, Inc.

**SHEET METAL (32)**
Windows
DETROIT STEEL PRODUCTS COMPANY
Oakland 8: 1310 - 63rd St., OL 2-8826
San Francisco: Russ Building, DO 2-0890
MICHEL & PFEFFER IRON WORKS, INC. *(13)
PACIFIC COAST AGGEGATES, INC. *(11)
Fire Doors
DETROIT STEEL PRODUCTS COMPANY
Skylights
DETROIT STEEL PRODUCTS COMPANY

**SOUND EQUIPMENT (32a)**
STROMBERG-CARLSON CO.
Burlingame, 1805 Rollins Rd., OX 7-3630
Los Angeles, 5415 York Blvd., CL 7-3939

**STEEL—STRUCTURAL (33)**
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland: 2345 N. W. Nicolai, BE 7261
Seattle 1331 3rd Ave. Bldg., MA 1972
Salt Lake City: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland: 18th & Campbell Sts., GL 1-1767
JUDSON PACIFIC-MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 N. Montgomery St., GA 1-0977
Los Angeles: Edison Building
Seattle: White-Henry-Stuart Building
Salt Lake City: Walker Bank Building
Denver: Continental Oil Building
SAN JOSE STEEL COMPANY
San Jose 195 North Thirtieth St., CO 4184

**STEEL—REINFORCING (34)**
REPUBLIC STEEL CORP. *(33)
HERRICK IRON WORKS *(33)
SAN JOSE STEEL CO. *(33)
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP. *(33)

**SWIMMING POOL FITTINGS (34a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**CLAY TILE (35)**
THE CAMBRIDGE TILE MFG. CO.
Redwood City: 132 Wilson St.
Los Angeles 19: 1335 S. La Brea, WE 3-7800

GLADDING, McMEAN & CO. *(3)
KRAFTILE
Niles, Calif.: Niles 3611
San Francisco 5: 50 Hawthorne St., DO 2-3780
Los Angeles 13: 406 South Main St., MU 7241

**TIMBER—REINFORCING (36)**
Trusses
Tacoma, Wash
WYERHAEUSER SALES CO.
St. Paul, Minn.
Newark, N. J.
Treated Timber
J. H. BAXTER CO.
San Francisco 4: 200 Bush St., YU 2-0200
Los Angeles 5: 3450 Wilshire Blvd., DU 8-9591

**TRUCKING (36a)**
PASSETTI TRUCKING CO.
San Francisco 3: 264 Clementina St., GA 1-5297

**WALL TILE (37)**
THE CAMBRIDGE TILE MFG. CO. *(35)
GLADDING, McBEAN & CO. *(3)
KRAFTILE COMPANY *(35)

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE. 1-1345

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C. 681 E. Hastings St.
TECON PRODUCTS, INC.
Seattle 4, Washington 304 So. Alaskan Way

**WINDOWS STEEL (38)**
DETROIT STEEL PRODUCTS CO. *(32)
MICHEL & PFEFFER IRON WORKS
212 Shaw Road, So. San Francisco, PLaza 5-8983
PACIFIC COAST AGGREGATES, INC. *(11)

**GENERAL CONTRACTORS (39)**
BARRETT CONSTRUCTION CO.
1800 Evans Ave., AT 8-1471
Los Angeles: 234 W. 37th Place, AD 3-8161
J. BETTANCOURT
San Bruno: 1015 San Mateo Ave., JUno 8-7525
DINWIDDIE CONSTRUCTION COMPANY
San Francisco: Crocker Building, YU 6-2718
CLINTON CONSTRUCTION COMPANY
San Francisco: 923 Folsom St., SU 1-3440
MATTOCK CONSTRUCTION COMPANY
San Francisco: 604 Mission St., GA 1-5516
E. H. MOORE & SONS
San Francisco: 693 Mission St., GA 1-8579
PARKER, STEFFENS & PEARCE
San Francisco: 135 So. Park, EX 2-6639

**TESTING LABORATORIES (ENGINEERS & CHEMISTS (40)**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

*ATTENTION:* The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds California Union Contracts, Construction Industry in effect during 1955-56

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | 9¢w | 9¢w | 9¢w | 9¢w | 9¢w | 9¢w | 9¢w | 9¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w |
| BOILERMAKER | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w |
| BRICKLAYER | 10¢w | | | | | | | 10¢w | | | | | |
| BRICKLAYER, HODCARRIER | 7½¢w | 10¢w | 10¢w | | 10¢w | 10¢w | | 10¢w | | | 7½¢w | | |
| CARPENTER | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w |
| CEMENT FINISHER | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w |
| CONCRETE MIXER—Skip type (1-yd.) | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w | 10¢w |
| ELECTRICIAN | 7½¢w | 7½¢w | 7½¢w | | 7½¢w | 7½¢w | | 7½¢w | | | 10¢w | | 7½¢w |
| | 1%P; 4%v | 1%P; 4%v | 1%P; 4%v | 1%P | 1%P | 1%P; 4%v | 1%P | 1%P; 4%v | 1%P | | 1%P | 1%P | 1%P |
| ELEVATOR CONSTRUCTOR | 6¢w | 6¢w | 6¢w | 6¢w | 6¢w | 6¢w | 6¢w | 6¢w | 6½¢w | 6½¢w | 6½¢w | 6½¢w | 6½¢w |
| ENGINEER: MATERIAL HOIST | 10¢w | 10¢w | 10¢w | 10¢v | 10¢w | 10¢w | 10¢w | 10¢w | | | | | |
| GLAZIER | 7½¢w | 7½¢w | 7½¢w | | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | | 7½¢w | | |
| | 8½¢v | 8½¢v | 8½¢v | | 5¢v | 5¢v | 8½¢v | 8½¢v | | | | | |
| IRONWORKER: ORNAMENTAL | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w |
| REINF. STEEL | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w |
| STRUCTURAL STEEL | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w | 7½¢w |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LABORERS: BUILDING | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| CONCRETE | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | | | | | |
| LATHER | 7½cw | | 7½cw | | 10cw | 10cw | | | $1 dayw | 50c dayw | 10cw | | 7½cw |
| MARBLE SETTER | | | | | | | | | | | | | |
| MOSAIC & TERRAZZO | 7½cw | | | | | | | | | | | | |
| PAINTER—BRUSH | 8½cw | 8½cw | 8½cw | 8cw ICADM | 7½cw | 8½cw | 8½cw | 10cw | 8½cw | | 8cw | 10cw | 10cw |
| PAINTER—SPRAY | 8½cw | 8½cw | 8½cw | 8cw ICADM | 7½cw | 8½cw | 8½cw | 10cw | 8½cw | | 8cw | 10cw | 10cw |
| PILEDRIVER—OPERATOR | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| PLASTERER | 10cw | 11cw | 11cw | 7½cw | 10cw | 10cw | 7½cw | 60c dayw 12½cw | | | 10cw | | 7½cw |
| PLASTERER, HODCARRIER | 7½cw | 11cw | 11cw | 7½cw | 10cw | 10cw | 7½cw | 60c dayw ½%PROM | 7½cw | | 10cw | | 7½cw |
| PLUMBER | 11cw; 2½cJIB 12½cv; 10cP | 10cw 12½cv | 10cw 1½cA | 10cw 10cP; 1cA | 10cw 12½cv | 10cw 10cP; 1cA | 10cw | 10cw 1cA | | | 10cw | 10cw | 10cw |
| ROOFER | 7½cw 7½cv | 7½cw 5cv | 7½cw 5cv | 7½cw 5cv | 7½cw 5cv | 7½cw | 7½cw 5cv | 7½cw | 8½cw | 10cv | | 8½cw 10cv | 7½cw 10cv |
| SHEET METAL WORKER | 7½cw | 7½cw 3¼cv | 7½cw 3¼cv | 7½cw 2%v | 7½cw | 7½cw | 7½cw 7½cv | 7½cw 4%v | 8½cw 6½cv | 8½cw 6½cv | 8½cw | 8½cw | 8½cw 9cv |
| SPRINKLER FITTER | 7½cw | 7½cw | 7½cw | | | | 7½cw | 7½cw | 7½cw | | | | |
| STEAMFITTERS | 11cw; 10cP 12½cv; 2½cJIB | 10cw 1cA | 10cw 1cA | 10cw 10cP; 1cA | 10cw 12½cv | 10cw 10cP; 1cA | 10cw | 10cw 1cA | | | 10cw | 10cw | 10cw |
| TRACTOR OPERATOR | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw |
| TRUCK DRIVER—Dump trucks, under 4 yds. | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 10cw | 7½cw | 7½cw | 7½cw | 7½cw | 7½cw |
| TILE SETTER | 7½cw | 7½cw | 7½cw | | | | 7½cw | 7½cw | 7½%w ¼%PROM | | | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.


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## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**CALIF. MOTOR VEHICLE BLDG.,** Lancaster, Los Angeles County. Harris S. Phelps, Los Angeles, owner. Frame and stucco construction, composition roofing, slab floor, acoustical tile ceiling, interior plaster, air conditioning, ceramic tile, asphalt tile, electrical, plumbing, tapered girders, carport, asphalt paving; 3000 sq. ft. area. ARCHITECT: E. Lynn Child and STRUCTURAL ENGINEER: Ralph S. McLean, 1424 N. Spadra Rd., Fullerton. GENERAL CONTRACTOR: A. S. Coombs, 44863 N. 12th St., West, Lancaster.

**FOUNDRY,** San Leandro, Alameda County. Industrial Castings Company, San Leandro, owner. 1-Story reinforced concrete tilt-up construction — $76,839. ARCHITECT: John S. Bolles, Pier 5, Embarcadero, San Francisco. GENERAL CONTRACTOR: Elvin C. Stendell, 26th & Kansas St., San Francisco.

**WAREHOUSE & OFFICE,** Stockton, San Joaquin County. John Deere Plow Co., San Francisco, owner. 1-Story structural steel frame, reinforced concrete tilt-up walls, insulation, aluminum siding, poured gypsum reinforced work, miscellaneous iron and steel work, open web steel joists—$406,075. ENGINEER: Indence Inc., 2960 Merced St., San Leandro. GENERAL CONTRACTOR: Craft Construction Co., 2812 Saguinetti Lane, Stockton.

**MARKET,** Norwalk, Los Angeles County. Owner c/o Contractor. Tilt-up concrete market building; built-up composition roofing, concrete slab and asphalt tile floors, exposed concrete interior, acoustical tile ceiling, fluorescent lighting, plate glass store front, black-top parking lot; 16,000 sq. ft. in area. ENGINEER: John P. Jamison & Associates, 11750 S. Alameda, Lynwood. GENERAL CONTRACTOR: Hanson Construction Co., 11750 S. Alameda Ave., Lynnwood.

**SEGREGATION UNIT,** Perkins, Sacramento. State of California, Sacramento, owner. Northern California Reception Center and Clinic; reinforced concrete and brick construction; reinforced concrete roof, roof insulation, acoustical tile, ceramic and asphalt tile, movable metal partitions, steel custodial sash, hollow metal doors; 3200 sq. ft. area—$102,345. ARCHITECT: Anson Boyd, State Architect, Sacramento. GENERAL CONTRACTOR: Gavel & Flanders, 229 W. St., Sacramento.

**SCHOOL BLDG.,** Lompoc, Santa Barbara County. Lompoc Elementary School District, Lompoc, owner. Construction of the Arthur Hapgood Elementary School; 12 classrooms, frame and stucco construction, composition roofing, concrete slab floor, asphalt tile floors, plaster walls, acoustical tile ceilings, cabinet work, plumbing, electrical work, steel sash, forced air heating, sheet metal—$179,316. ARCHITECT: Pierre Clayessens, 11941 Wilshire Blvd., West Los Angeles. GENERAL CONTRACTOR: O. J. Reiner, 415 N. McClelland St., Santa Maria.

**MEMORIAL BLDG.,** Alpaugh, Tulare County. Alpaugh Memorial District, Alpaugh, owner. Work consists of addition to present building and remodel; meeting rooms, kitchen—$27,725. ARCHITECT: Walter Wagner & Associates, 1830 Van Ness, Fresno. GENERAL CONTRACTOR: Fidler & Darei, 619 N. Blackstone, Tulare.

**UNDERTAKING PARLOR,** Fairfield, Solano County. Hansen-Bryan, Inc., Suisun, owner. Wood and stucco construction, poured concrete foundations, concrete slab floors, frame roof and composition roofing; 3,000 sq. ft. area—$55,000. ARCHITECT: Jack Buchter & Associates, 61 Moraga Highway, Orinda. GENERAL CONTRACTOR: Ernest F. Schrock, P. O. Box 269, Vacaville.

**MEDICAL BUILDING,** Santa Clara. Benton & Gould, San Jose, owner. 1-Story, wood frame, built-up roof; 2500 sq. ft. area—$28,875. ARCHITECT: Higgin & Root, 220 Meridian Rd., San Jose. GENERAL CONTRACTOR: Oscar Meyer, 1681 Dry Creek Rd., San Jose.

**DORMITORY,** Northern California Reception Center, Perkins, Sacramento county. State of California, Sacramento, owner. Reception Center and Clinic, 1-story dormitory building; slab floor, reinforced concrete, brick exterior walls, plaster interior, security steel sash, hollow metal doors, refrigeration, insulation, mechanical and electrical; 8600 sq. ft. area—


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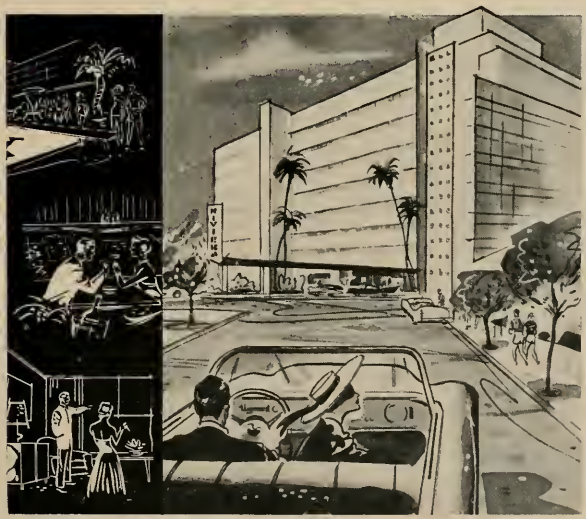

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$224,997. ARCHITECT: Anson Boyd, State Architect, Public Works Bldg., Sacramento. GENERAL CONTRACTOR: George W. Reed, 929 9th St., Sacramento.

**COURTS & OFFICE,** Dinuba, Tulare county. County of Tulare, Visalia, owner. Work included new courts and office building—$60,990. ARCHITECT: Lloyd Fletcher, 217 W. Main St., Visalia. GENERAL CONTRACTOR: Guy Munson, 275 Tulare St., Visalia.

**FURNITURE STORE,** San Jose, Santa Clara county. Robinson's Furniture Store, Lessee, San Jose. 1-Story and mezzanine, reinforced concrete tilt-up construction, some stone, laminated beams, plate glass front, automatic sprinkler system; 50,000 sq. ft. area—$300,000. GENERAL CONTRACTORS: Van Bokkelen - Cole Co., 955 W. Grand Ave., Oakland.

**Y.M.C.A. BLDG.,** Palo Alto, Santa Clara county. Y.M.C.A., Palo Alto, owner. 1-Story building to contain staff offices, chapel, gymnasium, shower and locker rooms, toilet rooms; 18,000 sq. ft. area—$224,300. GENERAL CONTRACTOR: Vance M. Brown & Son Inc., P. O. Box 906, Palo Alto.

**NEW JR. HIGH SCHOOL,** Eureka, Humboldt county. Eureka Unified School District, Eureka, owner. Frame and stucco, some structural steel; facilities for administration offices, 20-classrooms, music, library, cafeteria, shops, gymnasium, toilet rooms—$1,175,962. ARCHITECTS: Masten, Hurd & Dick, 526 Powell St., San Francisco & William Van Fleet, 350 E St., Eureka. GENERAL CONTRACTOR: A. C. Johnson & Sons, 25 6th St., Eureka.

**OFFICE & FACTORY,** Oakland, Alameda county. Simplex Mfg. Co., Oakland, owner. 1-Story and part mezzanine, reinforced concrete, tilt-up construction, wood roof trusses, wood roof; 106x235 ft.—2000 sq. ft. of office area. STRUCTURAL ENGINEER: Hugh M. O'Neil Co., 610 16th St., Oakland. GENERAL CONTRACTOR: F. P. Lathrop Construction Co., 806 Hearst Ave., Berkeley.

**COLD STORAGE PLANT,** Modesto, Stanislaus county. Merchants Refrigeration Co. of California, Modesto, owner, 1-Story reinforced concrete and structural steel, steel roof trusses, wood roof, insulation; 200x240 ft.—$235,230. ARCHITECT: George N. Hilburn, 712 17th St., Modesto. GENERAL CONTRACTOR: Carvers Const. Co., 1870 Lucerne Ave., Stockton.

**TRAILER PARK,** Bridgeport, Mono county. Eleventh Naval District, San Diego, owner. 20-Unit trailer park including site preparation, concrete construction, utility building, utilities and road surfacing—$42,800. GENERAL CONTRACTOR: Kast Const. Co., 1210 2nd St., Manhattan Beach.

**SEWAGE DISPOSAL FACILITY,** Mare Island Naval Shipyards, Solano county. U.S. Navy, Public Works Office, San Bruno, owner. Sewage disposal facility, excavation, piling, piping, pumping plants, treatment plant, outfall sewer, structures to house facility, electrical work, fencing, tile work—$5,428,000. GENERAL CONTRACTOR: M & K Corpn., 519 Calif. St., San Francisco, and Stolte Inc., San Leandro.

**NAVAL FACILITIES,** Point Sur, Monterey County. U. S. Navy, District Public Works Office, San Bruno, owner. 5-Concrete block buildings, concrete slab floors, built-up reinforced, concrete slab floors; 1 administration bldg, 2 enlisted men's barracks; subsistence bldg., shop building, 10 one story concrete buildings, garage, storage, auditorium, recreation, boiler house, terminal equipment, emergency power station, water treatment plant, earth-covered magazine for ammunition storage; 2 wood frame guard shelters, tile work, plumbing, refrigeration, steam plant, air conditioning, sewers—$1,290,000. GENERAL CONTRACTOR: Clarence Ward Const. Co., 4323 E. Harvey St., Fresno.

**ADMINISTRATIVE BLDG.,** Westminster, Los Angeles county. Board of Education Westminster School District, Westminster, owner. Reinforced brick central administration building, shake roof, concrete slab, forced air heating, acoustical, plumbing, electrical and related work; 5000 sq. ft. area—$102,808. ARCHITECT: Lee B. Kline, 1741 Silver Lake Blvd., Los Angeles. GENERAL CONTRACTOR: J. Ray Construction Co., 3446 E. Coast Highway, Corona del Mar.

**REALTORS BLDG.,** Burlingame, San Mateo county. San Mateo - Burlingame Realty Board, San Carlos, owner. 1-Story wood frame and stucco construction, shake roof; 2400 sq. ft. area—$31,395. ARCHITECT: Clemens Fredell Jr., 86 Madrone St., San Carlos. GENERAL CONTRACTOR: Roberts Const. Co., 1618 El Camino Real, San Mateo.

**COUNTRY CLUB,** Granada Hills, Los Angeles county. Knollwood Country Club, Granada Hills, owner. Two buildings, wood siding and stone veneer, composition roofing, concrete slab, laminated wood beams, heating and air conditioning, electrical, plumbing, folding accordion doors, locker rooms, bar, dining room, barber shop; 23,000 sq. ft. area. ARCHITECT: John C. Lindsay, 827 Moraga Drive, West Los Angeles. GENERAL CONTRACTOR: Ernest W. Hahn Inc., 219 S. Hawthorne Blvd., Hawthorne.


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# IN THE NEWS

### ARCHITECTURAL FIRM IN NEW OFFICES

The architectural firm of Birge M. Clarke, FAIA, and Walter Stromquist, AIA, has moved into new offices at 3200 Hanover Street, Palo Alto. The new offices are located about a quarter of a mile southeast of Page Mill Road in the Stanford Industrial Park.

### HAROLD A. DAVIS APPOINTED PLUMBINGWARE REPRESENTATIVE

Harold A. Davis, San Francisco, has been appointed Northern California, and Reno, Nevada, representative of the Plumbingware Mfg. Co. of Chicago, and the Peerless Pottery Co., Inc., of Evansville, Ind.

Davis has long been identified with the plumbing fixture field in the West.

### PREPARE ADDITION TO WOMEN'S DORMITORY

Architects Douglas McLellan and John Fortune, in cooperation with the supervising architect of the campus Welton Becket and the office of architects and engineers headed by principal architect Carl C. McElvy, and in coordination with architect Coulson Tough, are preparing working drawings for a $682,000 addition to Mira Hershey Hall at the University of California, Los Angeles.

The new wing will almost triple the capacity of the only women's residence hall on the campus, containing 38,000 sq. ft. of area it will be a three-story height structure, providing accommodations for 200 women students.

### LOS ANGELES ART INSTITUTE BUILDS

Construction has started on the new $500,000 art gallery and library for the Los Angeles County Art Institute, located at Wilshire Blvd. and Park View, and designed by Austin, Field & Fry, architects and engineers.

An expandable gallery accommodating approximately 700 people, which can be divided into two separate galleries as desired by the use of special sliding doors, will occupy the ground floor. Two sculpture studios will be located on the second floor, and a basement will provide additional facilities.

The building will be completely air conditioned and will provide space to house equipment needed for future expansion.

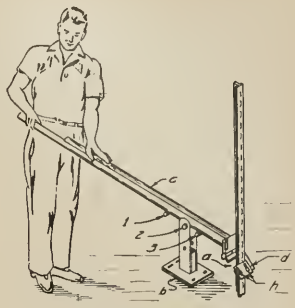
### LEO HUNGERFORD NAMED DIRECTOR SALES

Leo Hungerford, Los Angeles, has been appointed director of sales engineering for the Utility Appliance Corp., according to an announcement by Herbert S. Leo, executive vice-president and general manager of the firm.

Hungerford has been sales manager for Southern California and associated with the company for 17 years.

### LABORERS & HOD CARRIERS HALL

D. A. Ramberg, architect of Ramberg and Lowrey, Santa Ana, and Floyd E. Weaver, Structural Engineer of Santa Ana, are preparing plans and specifications for

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"We wouldn't dream of building a home without concealed wiring and telephone outlets in the original plans. It's the kind of detail that sets the well-built home above the average. It just has to be there." Telephone outlets in rooms that are used most add much to the value of Ehrlich homes.

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construction of a Laborers and Hod Carriers Union Hall building to be built in Santa Ana for Local 652.

The building will contain 8000 sq. ft. of area; slab floor, std and stucco with stone veneer, composition roof, plaster interior, steel sash, fluorescent lighting, air conditioning and forced air heating.

### CAPEHART HOUSING PROJECTS BEGIN

A number of special military housing projects provided for under the "Capehart Act" of Congress, are beginning to take shape. Among those recently announced to be "on drawing boards" are:

A 51-unit project at the Marine Corps Center, Barstow, and Marine Corps Auxiliary Air Station at Mojave. The Barstow work will cost $841,000, while estimates of the Mojave work is $11,467,500. Each unit will contain from 1080 to 2100 sq. ft. and will have 2, 3, and 4 bedrooms.

A project at the Naval Auxiliary Air Station at El Centro will provide for 241 units; each unit will have from 1080 to 2100 sq. ft. of area, 2, 3, and 4 bedrooms, two baths; and the overall cost is estimated at $3,976,500.

A 360-unit project at the Naval Air Missile Test Center at Pt. Mugu, will provide units of 2, 3, and 4 bedrooms, 2 baths; areas of from 1080 to 2100 sq. ft., and the estimated cost of the project is $5,940,000.


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### ALAMEDA COUNTY COURTS BUILDING

The Board of Supervisors of Alameda county has commissioned architect John Hudspeth of Oakland, to draw preliminary plans for construction of a Berkeley-Albany Joint Justice Court building to be built adjacent to the City Hall in Berkeley.

The estimated cost of the project is $180,000.

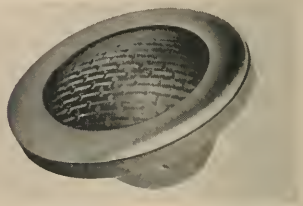
### JUVENILE HALL ADDITION

Architect Stanley Clark Meston, 8233 Sierra Ave., Fontana, is completing plans and specifications for construction of two tilt-up concrete detention units of the San Bernardino County Juvenile Hall in San Bernardino, for the San Bernardino County board of supervisors.

The units will contain 8400 sq. ft. of area, composition roofing, steel sash, security grills, kalamein doors, metal door frames, security type hardware, acoustical ceilings, steam heating, cast aluminum plumbing, concrete slab and asphalt tile floors, asphalt paving, and chain link fencing.

### UNDERWATER LIGHT FOR SWIMMING POOL

A new underwater light for night pool swimming, achieves daylight transparency thereby increases swimming fun and safety; features new fresnel-type diffusing lens, and a daylight-blue reflector. Diffusing lens provides increased downward deflection thus insures more thorough light coverage of every pool area.



Special locating lugs on the inside of the rim mean the light can be snapped into place with a minimum of fumbling during relamping process. In designing Strato-Lite, Swimco provides a new spring-loaded lock-in device that holds light securely in place; moulded rubber gasket also protects the lens. Complete data from SWIMCO, El Monte, California.

### NEW BANK BUILDING

Architect Charles F. Strothoff, 1855 Market Street, San Francisco, is completing drawings for construction of a 1-story and mezzanine, Bank Building in Walnut Creek, for the American Trust Company.

Construction will be of reinforced brick and concrete, steel trusses, built-up roofing, aluminum windows, marble tile flooring.

### DIESEL ENGINE REPAIR SHOPS

The Western Pacific Railroad has announced it will construct a new diesel engineer repair shop in their yards in Oroville, California.

The new building will be 1-story, structural steel frame, transite or protected metal exterior construction, 185x240 feet.

### MOOSE LODGE FOR VALLEJO

Architect Edward P. Schwafel, 2206 Spring Street, Vallejo, is completing drawing for construction of a 1-story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Moose Lodge building in Vallejo for the Loyal Order of Moose of Vallejo.

The new building will be of concrete block construction, 80x120 ft.

### JUNIOR COLLEGE AUDITORIUM

Architect Harry J. Devine, 1012 J Street, Sacramento, is completing drawings for construction of a frame and stucco Auditorium building for the Modesto Junior College at Modesto.

Estimated cost of the project is $450,000.

### ADJUSTABLE HAND RAIL BRACKETS

New Ariston hand rail brackets may be instantly aligned in any direction on the wall surface, eliminating installation problems caused by off-center anchor bolts; completely conceals the anchorage, no exposed bolts or screws.

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### CONCORD AIRPORT ADMINISTRATION

The architectural firm of Aitken and Collin, 2102 Vine Street, Berkeley, is completing drawings for construction of a 2-story administration building at Buchanan Airport, near Concord, for the Contra Costa board of supervisors.

Pre-cast concrete construction will be used.

### NEW WAREHOUSE BUILDING

Structural Engineer Hugh M. O'Neil, 610 16th Street, Oakland, recently announced a building permit had been issued and work started on construction of a 1-story, 128,000 sq. ft. area, warehouse building in Emeryville for the Rawson Drug & Sundry Company.

Construction will be concrete, tilt-up walls, tar gravel roofing. Estimated cost is $1,000,000.

### SALINAS RADIO BROADCASTING

Architect William D. Concolino, 588 Houston Street, Monterey, has completed drawings for construction of a frame and stucco addition to Radio Broadcasting Station KSBW in Salinas.

The work also includes an addition to the present building. The new facilities will add about 2,000 sq. ft. of area.

### JAMES W. TETRAULT GIVEN PROMOTION

James W. Tetrault has been elected a member of the Board of Directors of the Pacific Tile & Porcelain Company of Los Angeles.

He has been serving as plant manager since 1953 and joined the firm in 1950, following graduation from the University of Southern California where he received his degree in Industrial Engineering.

### HARRAHS CLUB TO ENLARGE

Architects Lockhard & Cazazza of Reno, Nevada, are completing working drawings for a major remodel of Harrahs Club in Reno.

The 71x140 ft. 4-story building will include steel frame and concrete construction with newest heating, ventilating and air conditioning equipment.

### DRYWALL CONTRACTORS FORM ASSOCIATION

The International Drywall Contractors Association has recently been organized according to an announcement by Sherwood M. Sitz of Los Angeles, executive director.

The organization has been three years in various formative stages and meetings held in Chicago last month in conjunction with the National Association of Home Builders convention, completed the new set-up. Delegates from Canada and eleven drywall associations representing all sections of the country attended the Chicago conference.

Sitz is an officer in the Employers Labor Relations Council of Los Angeles.

Wayne Vaughan, West Los Angeles, was elected president; Mervin L. Scott, Seattle; George Newman, Chicago; and


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Granville Waggoner, Nashville, were named vice-presidents; M. R. McColley of San Diego, secretary; and Charles Valdini of Long Island, New York, was named treasurer.

### HIGH SCHOOL GYMNASIUM AT POMONA

Architect E. L. Tozier, 556 N. Park Avenue, Pomona, has completed plans for construction of a tilt-up concrete gymnasium at the Fremont Junior High School, Pomona, for the Pomona Unified School District.

The building will contain 9430 sq. ft. of area; tapered steel girders, hardwood floors, unit heaters, ventilating system, electrical work. Estimated cost is $100,000.00.

### WILLIAM W. BRASIER PROMOTED BY YALE

William W. Brasier of Los Angeles, has been appointed special assistant to the general sales manager of the Yale lock and hardware division The Yale & Towne Mfg. Co., according to an announcement by James D. Young, general sales manager.

First representing Yale & Towne on the Pacific Coast in 1912, Brasier will continue to serve in the Los Angeles and West Coast region in his new duties.

### CHURCH, SUNDAY SCHOOL AND SOCIAL HALL

The architectural firm of Rickey & Brooks, 2015 J. Street, Sacramento, is preparing plans for construction of a 1-story wood siding, slab floor, built-up roofing with asbestos shingle, Church, Sunday School and Social Hall building in Yuba City for the Grace Methodist Church.

The new facilities will contain approximately 6,600 sq. ft. of area.

### BUILDING SYSTEM CORPN. FORMED

Formation of two corporations for manufacturing a new system of movable interior walls has been announced by Wayne Vaughan, president of the Los Angeles drywall interiors firm of Wayne Vaughan & Co.

Known as Vaughan Moveable Interior Walls and Wayne Vaughan Metals Co., both companies will be associated in the manufacture of a complete system of movable interiors formed of multi-ply gypsum panels.

Wayne Vaughan is presently serving as president of the Drywall Contractors Association of Southern California.


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*Indicates Alternate Months

# The Lunatic Wept

ABRAHAM SIMMONS couldn't feel the frost that lined his tiny stone cage, or taste the swill they fed him, or chafe at his iron chains—so his keepers said. He was a madman.

But then, when his visitor, little Miss Dix, spoke softly, kindly, to him, why did he weep?

Dorothea Lynde Dix knew why. And her knowledge kept her fighting all her life to get the mentally ill away from pits and cages, whips and chains, and into hospitals.

In nearly 40 years, she paused only once—to render heroic service as superintendent of nurses in the Civil War. Then again she began investigating, writing, fund-raising, politicking, until this frail ex-school teacher had pushed a whole country into one of the finest reforms in its history: the sane treatment of the insane.

Dorothea Dix was fortunate in having one powerful ally: the American people. For as history will show, Americans are seldom self-satisfied; they long to do right. That urge has helped them build a strong, stable nation in a troubled world—and it has helped make their country's Savings Bonds a rock-ribbed assurance of security.

The will and purpose of 168 million Americans back U.S. Savings Bonds, back them with the best guarantee you could possibly have. Your principal guaranteed safe to any amount—your interest guaranteed sure—by the greatest nation on earth. If you want *real* security, buy U.S. Savings Bonds. Get them at your bank or through the Payroll Savings Plan where you work. And hold on to them.

*Safe as America—U. S. Savings Bonds*

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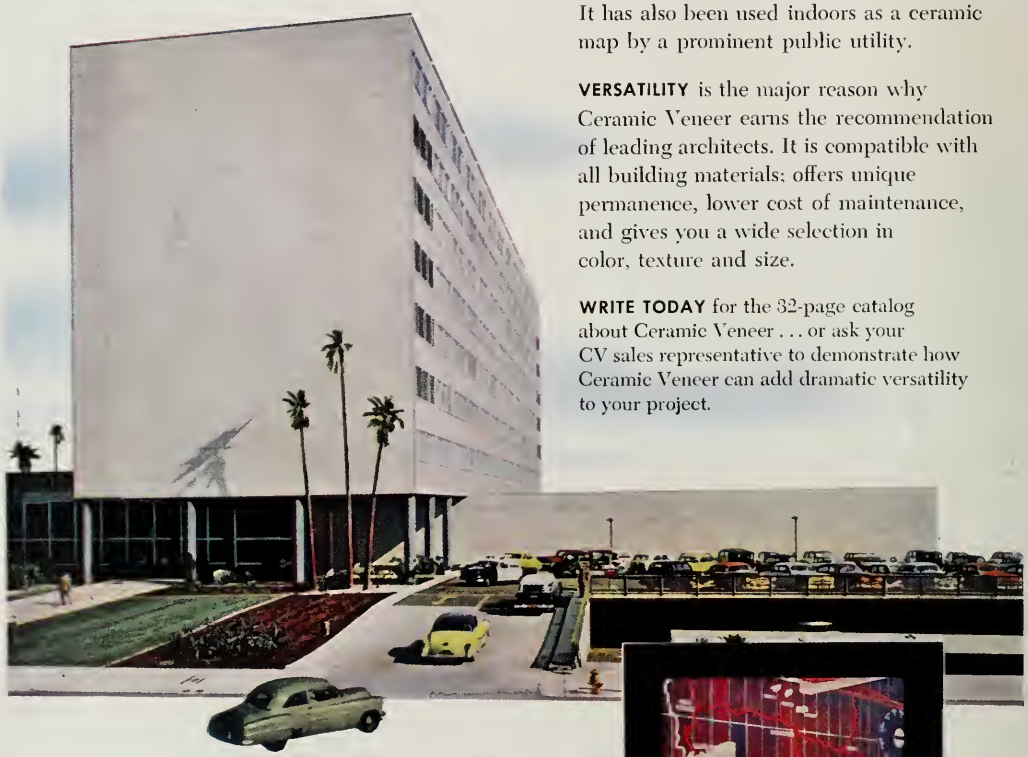
*dramatic versatility...*

Ceramic Veneer

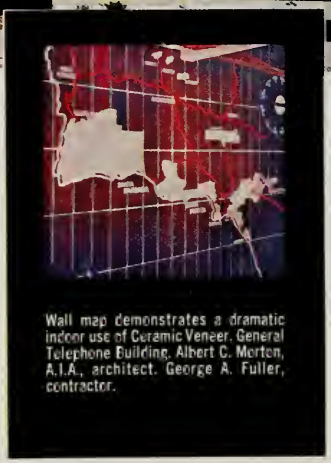
**OPPORTUNITY** for almost unlimited expression in concept is an architectural advantage of the highest order in building. That's why Ceramic Veneer, custom-made to the architect's specifications, is so important a part of your plans. Here is one facing material that offers you versatile combinations for dramatic effect . . . as demonstrated in the 8-story Police Building and the one-story office wing adjoining. It has also been used indoors as a ceramic map by a prominent public utility.

**VERSATILITY** is the major reason why Ceramic Veneer earns the recommendation of leading architects. It is compatible with all building materials; offers unique permanence, lower cost of maintenance, and gives you a wide selection in color, texture and size.

**WRITE TODAY** for the 32-page catalog about Ceramic Veneer . . . or ask your CV sales representative to demonstrate how Ceramic Veneer can add dramatic versatility to your project.



**Police Administration Building, Los Angeles,** shows how versatile Ceramic Veneer provides the perfect background for glazed ceramic mosaic tile spandrels, ceilings and columns, stainless steel and related building materials. Welton Becket, A.I.A., and J. E. Stanton, A.I.A., associated architects — Ford J. Twaits Company, general contractor.



Wall map demonstrates a dramatic indoor use of Ceramic Veneer. General Telephone Building. Albert C. Morton, A.I.A., architect. George A. Fuller, contractor.

Ceramic Veneer

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# ARCHITECT AND ENGINEER

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**DAVID WALLACE, Residence. Orinda, California**

**INTERIORS: Designed by Klaus Pfeffer**

**MARCH** **1957**

Fresno County Tuberculosis Hospitol, Fresno, Californio. David H. Horn, A.I.A., Morshall D. Mortland, A.I.A., Associate Architects
General Contractor: Midstate Construction Co. & Stolte, Inc., a joint venture

# Ariston Steel Windows and Architectural Metal Work

*...are featured throughout the Fresno County Tuberculosis Hospital Fresno, California*

You can be sure when you specify Ariston products!

Ariston steel windows are available for semi-intermediate, intermediate and heavy sections. Designed to open in or out. Roto or simplex hanging. Frames are electrically butt welded, exposed surfaces ground smooth. Casement and projected ventilators available.

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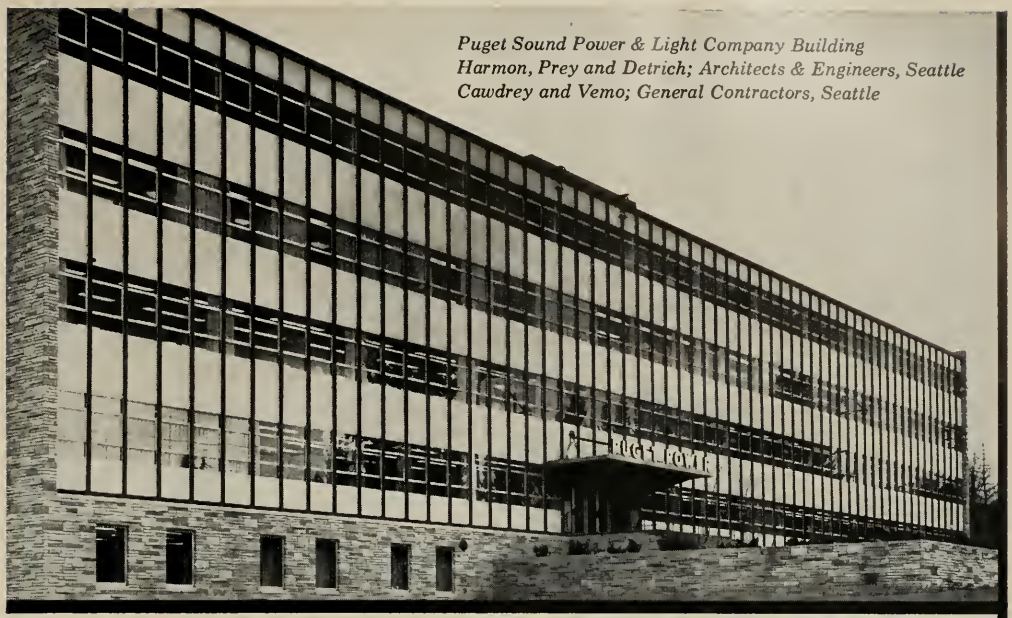
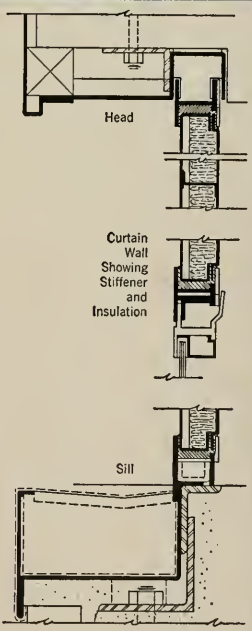
Since 1912 Metal Products

**Michel & Pfeffer Iron Works, Inc.**
212 Shaw Road
South San Francisco, California
PLaza 5-8983



*Puget Sound Power & Light Company Building*
*Harmon, Prey and Detrich; Architects & Engineers, Seattle*
*Cawdrey and Vemo; General Contractors, Seattle*

*The exterior face of the Fentron panel is porcelain enamel over 16-gauge USS Vitrenamel Sheet. Interior is 14-gauge USS Cold Rolled Sheet with insulation sandwiched between. "u" factor is .104. These panels are effective as covers for spandrels and columns, and as mullions complete with windows.*




# Prefab steel walls hold down building costs

UP, up, up go the costs of new building construction. One bright spot in this picture is the more economical building method using factory-built wall panels of stainless or porcelain enamel steel. These curtain walls are *fast to erect*, provide *more usable floor space*, permit earlier occupancy and sharply *reduce maintenance*. For the architect, this versatile and economical exterior treatment offers floor-to-floor panels that can be designed to harmonize with any architectural expression.

Here in the West, a number of companies have developed their versions of packaged steel walls fabricated from United States Steel Sheets. These curtain wall systems are figuring prominently in recent Western construction . . . from skyscrapers on down to one-story industrial buildings. In Bellevue, Washington, for example, the new Puget Sound Power & Light Company building (above) used curtain wall panels fabricated and erected by Fentron Industries, Inc., Seattle, Washington.

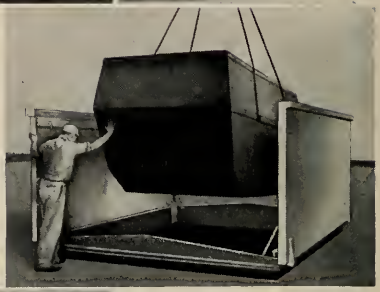
*Only Steel can do so many jobs so well*

*United States Steel Corporation • Columbia-Geneva Steel Division*
*120 Montgomery Street, San Francisco 6*

USS

UNITED STATES STEEL

# Quality can be measured . . .



Quality in a roof scuttle can be measured in many ways . . . by its ease of operation—the safety it affords the user—the virtually indefinite trouble free service it gives the building owner. Bilco scuttles offer your clients "floating" cover action, one hand operation and the finest of materials and workmanship—at a price of little more if any, than ordinary access doors. For lasting satisfaction specify Bilco—the measure of roof scuttle quality for more than 20 years. A size for every requirement—see our catalog in Sweets.

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Vol. 208 No. 3

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★

**COVER PICTURE**

DAVID WALLACE
Residence
Orinda California

Interiors designed by Klaus Pfeffer and Pearl Bank Steward, Associate.

Fireplace of bleached cork and copper designed by Klaus Pfeffer and executed by Merrill Beckwith is the dramatic focal point of the living room. See page 9 for further details.

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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

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# . EDITORIAL NOTES .

## ARCHITECTURAL PROSPECTS BRIGHT

So far as work currently on the boards is an accurate barometer of future construction, the building picture for this year looks bright, and according to Edmund R. Purves, executive-director of The American Institute of Architects, who looks at the nation's picture from Washington, D. C., through the eyes of many architects scattered throughout the vast area served by the Institute.

Federal, state and municipal public building programs; unfilled needs in the educational, health and ecclesiastical fields, are all contributing towards a great activity.

While Purves feels tight money has caused some difficulties in financing new construction, only those concerned with speculative home and commercial building seem to have been hurt much. Tight money, combined with the government's permissible percentage of interest, also has held back the Federal lease-purchase program.

The special problems that face the profession today are severe shortages of experienced draftsmen and shortages and slow delivery of some building materials. The results of the steel strike are still being felt in the construction industry.

However, Purves predicts "a continuation of the upward trend in construction during the forseeable future."

* * *

*". . . Total dollar values of all construction is headed toward still another new high of roughly $47.3 billion—up 6.3% in the year."—Fred Gower, Economic Consultant.*

* * *

## LIVING OFF PROBLEMS

Many people make a good living by "living off problems" and stirring them up. These people devote their time not to building a better mouse trap, or a better piece of machinery, or a better home, or conducting a profitable business. Rather, they make their living by exploiting the pathology of our society and by making big problems out of little ones.

They lament our lack of social progress for one thing, in spite of tomes of social legislation, mountains of government bureaus and unprecedented heavy tax payments, and to them reform and change have become ends in themselves.

It is one thing to meet obvious problems of genuine human need, to help people out of their stress, when they themselves can not extricate themselves. But it is quite another thing to keep the society everlastingly boiling and stirred up, just for the sake of the heat and the dust created.

We have adopted social security, we have countless aid programs, we have compulsory minimum wage laws, we have compulsory collective bargaining, we have farm aid running to 57 varieties, but, all this is not enough. "We must go forward," say the people who live off problems, "We must create a more forward momentum of liberalism."

It is not the masses who demand these things, it is the people who make their living by keeping the pot boiling and making big problems out of little ones.

* * *

*". . . The great challenge ahead is in the short periods of adjustment, when production and sales, supply and demand are out of balance."—S. W. Antoville, Pres, U.S. Plywood Corpn.*

* * *

## A FINGER IN THE DYKE

Warm commendations certainly are due Secretary of the Treasury George Humphrey for his "courageous opposition" to spending increases proposed in the $71.8 billion Federal Budget submitted to Congress by President Eisenhower for the fiscal year 1958.

Many businessmen and private citizens feel the Secretary placed his finger on a principal reason for federal extravagance when he mentioned "various public groups" who demand more and more from the Federal Treasury.

These demands are clearly reflected in the President's new budget requests for substantial increases in a long list of federal projects—civil works, welfare programs, subsidies of various sorts, and for greatly enlarged programs providing tax-payer money for local projects, such as school construction and solving problems of juvenile delinquency.

While few of the "official" Washington family have spoken out loud, other responsible governmental officials and possibly a few members of Congress are keenly aware of the ceaseless pressure for new or enlarged federal spending. Businessmen visiting Washington seeking relief from the tremendous burden of financing government spending are quietly, but firmly told, that until this pressure eases there is little real prospect for federal economy or tax relief.

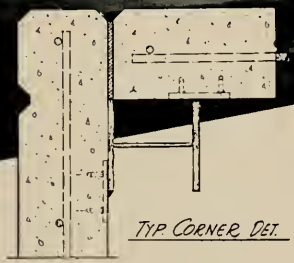
Nearly everyone agrees that many of the things people now expect the Federal Government to do for them are worthwhile.

The important point made by Mr. Humphrey's convictions, however, is that these are things the States and localities used to do for themselves, and in times far less prosperous than the present.

Everyone must make an "agonizing reappraisal" of state and local demands on Washington, and reassume those responsibilities which are theirs.

# PRECAST PREFABRICATED PRECISE

SAN JOAQUIN
COUNTY FAIR BUILDING
Stockton, California
Architects: STATE DIVISION OF ARCHITECTURE



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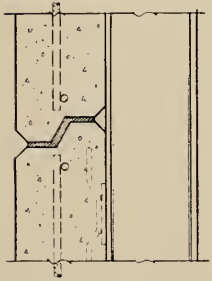

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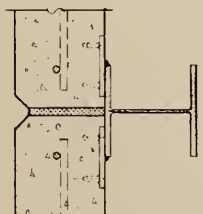

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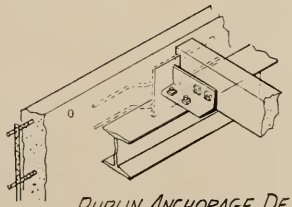

PURLIN ANCHORAGE DET.

**Cast** at the BASALT ROCK CO., Napa, California . . . delivered to the jobsite by truck and welded to the structural steel frame, the beauty and precision of the wall panels in this San Joaquin County Fair Building attest to the perfection of precast concrete construction. Unseen, but subtly apparent, is the inherent strength of the steel-reinforced panels and sections.

Quickly and economically erected and easily maintained, BASALT Precast Construction eliminates the risk of jobsite casting while providing a strength and finished beauty unobtainable with any other method of cast concrete construction.

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# NEWS and COMMENT ON ART

### CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Beatrice Judd Ryan, will present its final exhibition of Painting by D. Faralla, Fortunato Figone and Ray Strong; and Mobiles by Bill Straight during the month of March.

In the Little Gallery will be shown a special exhibition of Sports Car Models by Kay Dowd.

### M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is offering the following special exhibits and events for March:

EXHIBITIONS: Eight Indian Temples, a group of photographs circulated by Life Magazine; American Institute of Architects, Centennial Exhibition of recent distinguished architecture in Northern California; Maris von Ridelstein, Oils and Watercolors; Paintings by Stallknecht, and a group of Oils and Watercolors by Maurice Logan.

SPECIAL EVENTS include Classes in Art Enjoyment for adults; Painting Workshop for amateurs; seminars in the History of Art; and special classes in art for the children.

The museum is open daily.

### DESIGNER-CRAFTSMEN OF THE WEST EXHIBITION JURY IS ANNOUNCED

The M. H. deYoung Memorial Museum, San Francisco, has announced the final Jury for the exhibition "Designer-Craftsmen of the West—1957," which will go on public display June 1, will be comprised of:

Hal Painter, president, Professional Weavers' Asso-

(See page 8)

## SAN FRANCISCO MUSEUM OF ART

### WAR MEMORIAL BUILDING CIVIC CENTER

JACKKNIFE

Oil

32 x 26 inches

by

JAMES KELLY

Purchase Prize Award

76th Annual Painting and Sculpture Exhibition of the San Francisco Art Ass'n.

*GORDON SOMMERS, Photo*

# Downtown Office Building

RIVERSIDE, CALIFORNIA

VICTOR GRUEN & Associates
Architects

KENNETH M. MILLER,
ROBERT SAUCKE &
Associates,
Developers

A completely new $1,250,000 downtown, air conditioned, five story reinforced concrete office building will be constructed near the county courthouse in Riverside, California, for Kenneth M. Miller, Robert Saucke & Associates.

It will contain a total area of 60,000 sq. ft., including a covered parking area of 13,000 sq. ft. below ground level which will accommodate 110 automobiles.

The building will have large window areas and an elevator tower sheathed with gray-blue ceramic-mosaic tile. Glass mosaic spandrels will be of varying shades of turquoise, terra-cotta, and beige. An elevator lobby at the lower level will serve the parking facilities.

R. L. Baumfield, partner Victor Gruen & Associates, is the architect in charge.

## ALBERT C. MARTIN GRANTS FOR UNIVERSITY OF SOUTHERN CALIFORNIA

The Albert C. Martin Grants for advanced study and research in architecture at the University of Southern California have been established by Albert C. Martin & Associates, Los Angeles architectural and engineering firm.

Each spring, the awards will go to two fifth year graduating students in the SC School of Architecture, with the winner selected by the firm from students recommended by the school on the basis of interviews with architects and engineers from the firm.

The Grants provide for: 1) Tuition for three major architectural and engineering courses in the final semester; 2) An architectural project fund to be used for the construction of a prototype, model, or detail of the student's senior design thesis problem; and 3) Extension of the facilities of the firm, consultation with key staff personnel, and access to reference data, to aid students in the solution of their projects.

The third aspect of the award is perhaps the most important, in the opinion of Arthur B. Gallion, AIA, Dean of the SC School of Architecture, "as it very

(See page 34)

ciation; Merry Renk, metalworker and associate in design, Decorative Arts Department, University of California, Berkeley; Herbert Sanders, professor in Ceramic Art, San Jose State College; Herwin Schaefer, associate professor, Decorative Arts Department, University of California, Berkeley; and Rudolph Schaeffer, director of the Rudolph Schaeffer School of Design.

### CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., announces a number of special exhibitions and events for the month including:

EXHIBITIONS: Masters of British Painting, 1800-1950, a special exhibition of 103 pictures comprising a brilliant survey of the last century and a half of British painting assembled from notable public and private collections in the United Kingdom and this country by the Museum of Modern Art, New York, in collaboration with the City Art Museum of St. Louis and the California Palace of the Legion of Honor; Pictorial Americana, 1492-1822, a rare story in maps and engravings; Paintings and Drawings by Frank Ashley.

THE ACHENBACH FOUNDATION FOR GRAPHIC ARTS is exhibiting Watercolor Drawings by Thomas Rowlandson, commemorating the 200th anniversary of the birth of the great graphic humorist.

SPECIAL EVENTS: Organ Recital each Saturday and Sunday afternoon at 3 o'clock; Educational Activities—Art Classes for children each Saturday morning.

The museum is open daily.

### SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial

(See page 34)

Drive-In
AND
Bank
LOS ANGELES

CUNNEEN COMPANY
Architects

J. A. McNEIL CO.
General Contractors

The ever increasingly popular "drive-in and bank" facility takes attractive architectural form in the new home of the Wilshire Federal Savings and Loan Association, situated on fashionable Wilshire Boulevard in Los Angeles.

With spacious overhangs to accommodate customers' vehicles, the graceful building features liberal application of architectural porcelain enamel, to provide lasting freshness that matches the luxury of its surroundings.

Panels are used as a spandrel belt from the second floor window sills to the first floor ceiling line. These panels are attached along the horizontal line, top and bottom, by clips to blocking along the same line as the metal stud wall. Aluminum trim borders the top and bottom of the panels.

The unusual columns which support the overhang are inlaid with mosaic tiles.

**Cornice lighting over corner sofa**

*Barry Evans photo*

# FOUR MODERN INTERIORS

(Including the "Black House")

by

KLAUS PFEFFER

Design and Color Consultant

Berkeley, California

**Cabinets of combed plywood are lacquered black and designed to display the owner's collection of books, paintings and objects of art**

**Chinese fret wallpaper is extended two feet out on the ceiling and edged in a slender black molding to match the built-in cabinets**

Pictured on the following pages is a continuation of some of the recent work of Klaus Pfeffer Interior-Designer and his associate, Pearl Bank Steward of Berkeley, California. Shown in the folio are photos of a selected number of highly distinguished contemporary rooms which emphasize the dramatic use of custom furniture, hand woven fabrics, fine paintings and superb antiques, together with modern accessories. Three of these homes were recently completed for individual San Francisco-Oakland Bay Area clients. The fourth home pictured here is the startling "black house" which was the conversation piece at the famous California International Home and Garden Show last year. Accustomed to thinking of black as a sombre and depressing color, the public was astonished to find that the lavish use of black in this modern small house achieved a rare mood of sparkling, youthful gaiety.

Klaus Pfeffer is no new comer to the pages of Architect and Engineer magazine. Several times over the past decade his unique and distinguished work has been featured and in each instance has reflected exceptional versatility in design and color planning for offices, stores, apartment buildings, churches and residences.

His many unusual residential assignments have won national recognition for him as is evidenced by the frequent showings in House Beautiful, American Home, Better Homes and Gardens, Interiors and Sunset magazine. Last year Architect and Engineer magazine presented a detailed report on Color Planning for Tract Homes by Mr. Pfeffer and his associate, Pearl Bank Steward. This tract-home work activity continues to expand and now ranges from San Jose, Santa Clara, Irvington and Hayward north to Napa and Sacramento.

**REMODELED BERKELEY LIVING ROOM**

**for Mr. and Mrs. Walter A. Pfeffer**

**custom furniture and built-in cabinets by Frank Howe De Witt**

**handwoven fabrics by Vesta Vetter**

Built-in Hi-Fi system and apen shelves far display af ariental art flank the fireplace which is covered in Japanese paper textured with fish scales and cherry bark

**REMODELED BERKELEY RESIDENCE**
**for Dr. Chester S. Haward**

**Interiors by Klaus Pfeffer and Assaciate Pearl Bank Steward**

Shaji panels aver windaws are flanked by tall screens of Japanese silk

Photas by Masan Weymauth
courtesy af *Better Homes & Gardens*

**Indirectly lighted mural of colorful metal tile designed by Klaus Pfeffer**

**to accent dining area panelled in combed plywood**

**Shoji screens sliding in black lacquered tracks give horizontal accent to master bedroom of Dr. Chester S. Howard's home**

**Built-in headboard and panelling designed by Klaus Pfeffer are topped by panels of mirror for illusion of airy openness**

Ceiling and wall behind black upholstered safa are azalea red with flanking walls in black

**THIS MODEL HOUSE**
**displayed at the 1956 California International Home and Garden Show**

**Color Styling and Interior Decoration by Klaus Pfeffer and Associate Pearl Bank Steward**

Black fireplace wall; curtains, carpet and upholstery fabrics in black and white are brightened by azalea red ceiling and matching red decorative accents

The sparkling black and white kitchen with azalea red ceiling of this model house featured a Formica snack bar and a hanging cabinet ornamented by a collection of rare antique copper molds from Marie E. Hinckley of Oakland

Black and white theme with accents of azalea red is also featured on the exterior and landscaping. Black stucco and rustic, white trim, red front door and garage door are a dramatic background for planting of red and white azaleas, rhododendrons and pansies by Gordon Courtright

A striking original painting by Howard Hack of Oakland and dining furniture from S. Christian of Copenhagen in San Francisco are seen against black wall of dining area

Black walls with ceiling and carpet in azalea red, plus gleaming white curtains, bedspread and accessories made a memorable conversation piece of bedroom in this model home

furniture from S. Christian of Copenhagen in San Francisco
antique accessories from Marie E. Hinckley

original oil and watercolor paintings by Howard Hack
curtains by Beauti-Pleat Draperies

landscaping by Gordon Courtright
photos by Lonnie Wilson

Red and white study

**Spacious conversation group focusses on fireplace of bleached cork and copper shown also on cover**

**REMODELED ORINDA LIVING ROOM**
**for Mr. & Mrs. David Wallace**

**Interiors by Klaus Pfeffer and Associate Pearl Bank Steward**

**Monochromatic color scheme ranges from ivory white of bleached cork fireplace and painted wood ceiling through warm copper tones through the dark coffee brown of the walls. Brown and white striae of upholstery fabrics is echoed in brown and white striae of rug. Accents, including African masks over fireplace, are black.**

**Tall mirror reflects stair hall with custom made wallpaper in dark brown and white**

**custom made furniture by Merrill Beckwith**

**photos by Barry Evans**
**courtesy of *The American Home* magazine**

**LIGHTWEIGHT ROOF PANELS**

**Being made on site**

**LIGHTWEIGHT ROOF PANELS—Made of cement and high grade expanded shale aggregate. Mineral oil bond breaking agent is applied to rigid steel molds before mix is placed in forms. Free-piston air vibrator used along top of panel, serving primarily as a screed and vibrating only the very top of the mix. Panels are cast 60 at a time.**

THIN-SHELL PRE-CAST PANELS ROOF

# Thirty-Five Acres of Warehousing

## McCLELLAN AIR FORCE BASE

### Near Sacramento, California

Some 9200 thin shell precast roof panels made of lightweight aggregate will be used to roof 1.5 million square feet of warehousing under construction at McClellan AFB near Sacramento. Air Force Installations Engineers monitoring the project consider construction of these panels presents one of the more intriguing features of the new warehousing. The panels are composed of Portland Cement and a high grade of expanded shale aggregate thoroughly mixed but only lightly vibrated.

Each panel is 33 ft. 4 in. by 5 ft. Although they measure 12 inches in depth at the rib, on the underside they hollow to form a shell measuring only 1¼ inch at the center. Manufactured in a casting yard near the site, they are being cast sixty at a time. The contractor now has approximately 6,500 of the panels finished and most of these have been installed.

There are actually two warehouses involved, separated only by a railroad spur running through the site. Of identical design, the warehouses are single story. Floors are 3 ft. 9 inches above track height, and each warehouse is divided into Bays 200 ft by 400 ft.

Sprawling over 35 acres of the western portion of the Air Base, a small farm, or 23 football fields could be easily set within the perimeter of the warehousing. One warehouse is 400 ft. by 1,800 ft. and the other

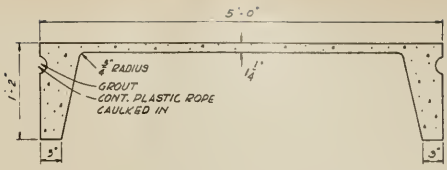
400 ft. by 2,000 ft.

When completed the warehousing will relieve badly overcrowded warehousing conditions at the Base which is the home of Sacramento Air Materiel Area. This is Air Materiel Command's largest West Coast installation for aircraft modification, overhaul and repair. A super mail-order house and mammoth wholesale supplier, SMAMA must stock over 300,000 separate items worth $662 million to service aircraft and supply Air Force installations in California, Oregon, Nevada, and overseas. The new warehousing will be used for storage of aircraft accessories and components, as well as some missile and radar parts.

The contract for the warehouses includes the railroad spur, roads, and utilities for the immediate warehouse area. It was awarded to four Sacramento firms, the Heller, Campbell, Erickson, and Lawrence Construction Companies who pooled their resources in a joint venture for the job. Estimated cost of the project is $7,264,000.

Original design for the warehouse was accomplished by the L. P. Kooken Company of Baltimore, Maryland. This design was modified and adapted to the site by the Tudor Engineering Company of San Francisco.

Construction began in July 1955 and the work is now 65% complete. All during the summer months of 1956 the contractor worked a 10-hour day, and this will be repeated during the summer of 1957. Work began first on the East 1,800 ft. warehouse which is scheduled to be completed by 18 October 1957. Estimated date of completion for the 2,000 ft. warehouse is 29 January 1958.



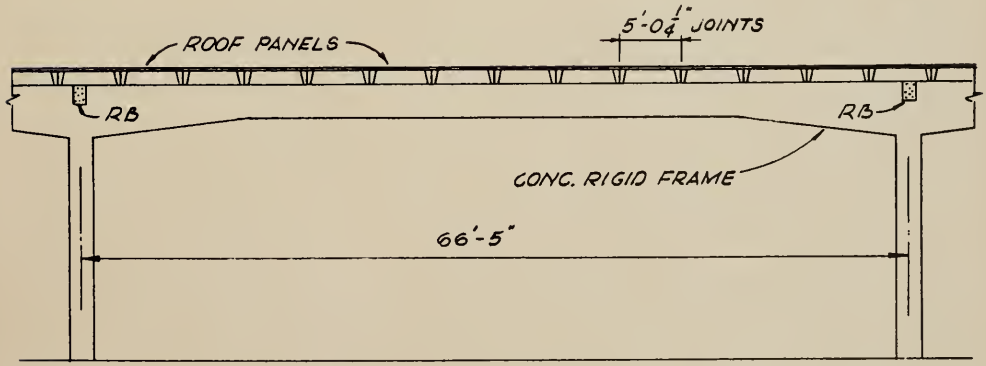

TYPICAL PRECAST CONCRETE ROOF PANEL
SCALE: 1" = 1'-0"

Essentially a concrete project, the ground floor slabs and frame columns are of Class AA concrete, all roof beams and girders are Class A concrete, and all footings and foundation walls are of Class B concrete. Concrete floor slabs were poured by the Carsons and Peters Company of Los Angeles. The mix was supplied by the prime contracting team.

Soil at the Air Base is particularly well adapted to construction. Surface soil is sandy silt and sandy clay, but underlying this is hardpan which averages three feet in depth.

In grading the site and removing all topsoil and debris, a total of 38,500 cubic yards of unsuitable material was removed. For preparation of the subgrade for the buildings, 81,000 cubic yards of select aggregate fill was required. This was supplied by Pacific Coast Aggregate Company of Fair Oaks, California. The H. Earl Parker Company of Marysville, California, did the grading, excavation and filling.

Compaction density for the select fill ran high—98%. This rate was necessitated by the unusually




PARTIAL CROSS SECTION OF WAREHOUSE
SCALE: 1/8" = 1'-0"

**PRE-CAST, Thin shell roof panels (left) being removed from forms. Stripping process requires about three minutes.**

**BELOW—Pouring more than 40,000 cu. yds. concrete for floors. Screeded to grade and hand troweled to a smooth surface.**

heavy loads per square foot that the warehousing floor will have to sustain. A compactor and 3-wheeled roller achieved the desired results.

As excavations progressed, pouring of the column footings began. Values of 4,000 pounds per square foot for live loads plus dead load and 3,000 pounds per square foot for dead load only were adopted for the bearing capacity of the footings which are founded on hardpan. Size of the footings run from the smaller column footings which are 4 feet square to the largest column footings which are 12 ft. 6 in. square. They are reinforced concrete spread footings except for footings at the firewalls which are mushroom type caisson footings.

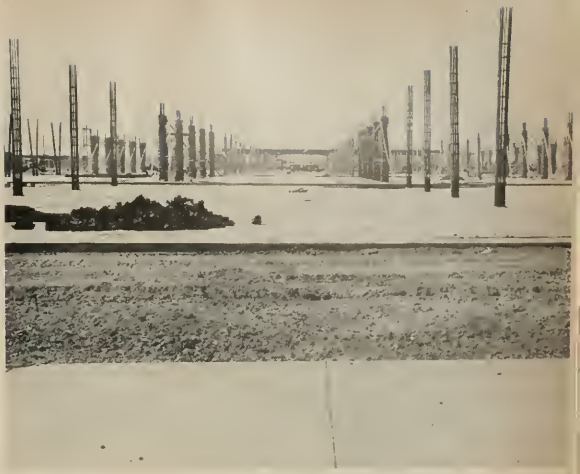
A batch plant was used at the site. The concrete was mixed in transit 6 yard trucks in 5 yard batches.

As soon as the column footings were in, the ground to be used for casting surface was smoothed and compacted and the foundation wall panels were cast. As these were erected, the foundation wall pedestals were poured up to the soffit of the floor.

With the footings in, the area around them was

**REINFORCING STEEL—for the continuous framing shown (right) protruding from acres of concrete floor slabs.**

**FRAMING (below) poured from one yard buckets, supplied by transit truck mixers. ¾" coated plywood used for forms.**



backfilled and compacted, and pouring of the floor slabs began. The slabs are 8 inches thick and, for the most part, are of unreinforced concrete. They were poured in 25 ft. lanes and inserts were left in the slabs for temporary wall braces. In constructing the floors, which are now entirely completed, over 40,000 cubic yards of Class AA concrete was used which met a minimum compressive strength of 3,750 psi at 28 days.

After the concrete was poured and vibrated, a roller screed, powered by a gas engine, screeded the concrete to grade. According to the contractor, this rotary screed was used with a remarkable degree of success. In only one pass it provided a true even plane and left no coarse aggregate visible. Slabs were then hand troweled to produce a smooth impervious surface.

Temperatures at McClellan range from 85° to 110°F. from May through October. W. A. Campbell of the joint venture contracting team, cited these temperatures when discussing one of the more interesting aspects he said he encountered in the construction. Because of the size of the project, the contractor had the opportunity to do the same thing day after day under approximately the same conditions, and was therefore able to develop construction procedures to a fine degree. During the hot summer months some of the floor slabs started to cure improperly. Surface cracks were appearing in the slabs and, strangely enough, the defective slabs were the ones poured during the morning hours. It was considered that the aggregate cooled down during the night and retained

(See page 24)

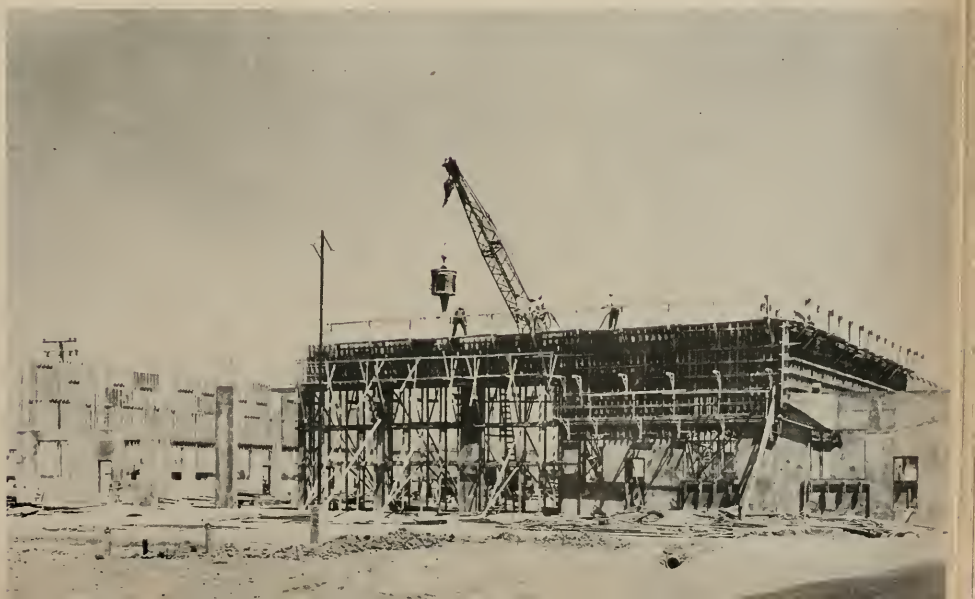


*Photo by Passetti Bros.*

NEW FREEWAY REQUIRES

# Demolition of San Francisco Buildings

The new "Central Freeway", being built as a part of the California State Highway System in metropolitan San Francisco, will leap over Market street from its present terminus at Duboce and Mission streets in the vicinity of Turk, Gough and Elm streets.

The 90-foot boom crane in the above picture, using a clam-bucket to demolish the old Hotel Jefferson and apartments at 848 Gough street, brings down an old city landmark. The building is but one of fifteen, 1 to 6 story buildings that are being razed to make room for the new superhighway.

Pete Passetti, president of the Passetti Trucking Company of San Francisco, organized the firm in charge of the demolition project some 22 years ago, specializing largely in the demolition of concrete structures in San Francisco and the Bay-Area. His son, Pete Passetti, Jr., joined the firm following active service in the US Navy. Also associated with the firm are J. C. "Eddie" Unger, Chief Estimator, and Harry Krier, III, office manager.

## THIN-SHELL PRE-CAST PANELS

(From page 23)

its coolness until the poured concrete started to set. Then under morning sun conditions the aggregate suddenly experienced a rapid change of temperature. In the afternoon the aggregate had warmed up before the pouring operations and the surface checking did not occur. The trouble was eliminated by fog spraying the slabs immediately after troweling.

Soon after the first floor slab was approved, casting of exterior wall segments and firewall segments began. The floor slab was used as a casting surface. Erection of the cast-in-place, continuous reinforced concrete framing being used throughout the structure began simultaneously.

The exterior wall columns resting on the largest footings are 20 inches by 24 inches at the bottom, increasing in size to 20 inches by 42 inches at the top. Cast-in-place girders are continuous in the 400 ft. direction of the building, except for an expansion joint near the middle. Girders are reinforced at top and bottom for the full length and have web reinforce-

ment throughout. They span 67 feet, measuring 33 feet 6 inches c-c. Curing period for the girders is 21 days, but shoring was left in up to 28 days. The framing was poured from one yard buckets with concrete supplied by transit truck mixers. The ¾ inch plastic coated plywood being used in the forms is supplied from San Francisco.

The tiltup walls are precast, reinforced concrete. Exterior and shear walls are 6 inches thick. The firewalls are 8 inches thick. These firewalls, which are constructed of concrete and lightweight expanded shale, abut the shear walls throughout the building at the end of each 200 ft. bay. Firewalls are the heaviest of the wall slabs. Largest of these measure 27 ft. long by 24 feet high and weigh 27 tons.

Whenever a firewall occurs the shear walls and firewalls are erected before their columns are poured. Subsequent pouring of the columns ties the two together and this manner of construction gives the wall a six hour fire rating.

So far only one wall panel has been damaged during erection operations. They are being hoisted into place by two 30-ton cranes. As soon as they are in place, steel from adjacent panels are looped together and welded at the top, middle and bottom of the panels.

The contractor had the option of casting-in-place or precasting roof beams for the warehousing, and erected to precast as preliminary investigations indicated this to be the least expensive in this case. There are 800 roof beams in all. Contractor set up nine roof beam forms and nine can be cast each day for they are stripped from their forms in 18 hours. The specially designed metal forms for these beams, which worked exceptionally well otherwise, presented quite a problem during the hot summer months. Ralph Irving, Corps of Engineers Project Engineer for the work, stated that during the summer the beams had to be covered with wet burlap and an automatic fog spray used to keep the concrete damp enough to cure without cracking and checking. This water treatment was also used for the precast roof panels.

Since this is the first time that roof panels of the type being constructed for the warehousing have been used in such quantity at an Air Force Base, manufacturing of the panels is under close surveillance. AF Installations Engineers require that every 250th panel be tested for deflection and recovery of deflection.

A tolerance of only ¼ inch is permitted in overall dimensions of the castings so units are cast in rigid steel molds. A mineral oil bond breaking agent is applied immediately before the light mesh reinforcement is placed. As the mix is placed in the forms, a free-piston air vibrator is used along the top of the panels. The vibrator serves primarily as a screed, vibrating only the very top of the mix.

Panels are left in the forms 48 hours, then they are stripped and a light membranous curing spray used on them. They are then stacked near the casting yard and allowed to cure for 60 days. A modified lumber carrier is used to pick up the panels and transport them from casting yard to site.

Two inches of 1:6 Perlite concrete is being applied for roof insulation. Then roofing felt and a five-ply asphalt will be used over the entire surface to form a built-up roof. One hundred pounds of asphalt and five hundred pounds of embedded gravel per 100 square feet of roof will be applied in two layers.

The new warehouse is based on a standard design that has been used at other Air Force Bases throughout the United States. However, some roof failures were experienced in previously constructed warehouses and, based on investigations which followed the failures, corrective changes are reflected in the McClellan warehousing.

Both girders and columns were strengthened over the original design. Critical areas in the top of the girders gained as many as six more #11 steel bars. The number of steel bars in the bottom of the girders remain the same, but the minimum size was increased from #9 to #10 bars. These changes give the girders approximately 40% more strength. Also, four additional bars were specified in the columns, and the size was changed from #10 to #11 on all column steel.

U. S. Air Force Installations Engineers developed criteria for the facility. The office of the Air Force Installations Representative, South Pacific Region, headed by Colonel Edwin M. Eads, is responsible for monitoring the work. Lt. Colonel Jack B. Marshall, Installations Engineer for McClellan is performing Base supervision for the Air Force. Design and construction contract responsibility is that of the South Pacific Division, Corps of Engineers, headed by Brigadier General William F. Cassidy. The contract for the project was let through the Sacramento District, Corps of Engineers, headed by Colonel A. E. McCollam.

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## PLANNING LANDSCAPE ARCHITECTURAL ASSOCIATE WANTED IN LOS ANGELES

Persons having three years' professional experience in landscape architecture or city planning may qualify for City of Los Angeles positions as PLANNING LANDSCAPE ARCHITECTURAL ASSOCIATE with a pay range of $545 to $677 a month, according to Joseph W. Hawthorne, Civil Service General Manager. No written examination will be given, selection being entirely by interview.

Applications must be filed by mail or in person at Room 5, Los Angeles City Hall or at the Information Window in lobby, Van Nuys Branch City Hall, by 5:00 P.M., Wednesday, March 20, 1957.

These positions offer all civil service benefits, including promotion by competitive examination, paid holidays and vacations, a 5-day workweek, plus sick leave and retirement benefits.

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## WASHINGTON STATE CHAPTER

"Expanding the Profession of Architecture" will be the theme of the 6th Regional Conference scheduled for Gearhart, Oregon, October 17-20, according to present plans.

A subcommittee of the Civic Planning Committee, consisting of Lawrence G. Waldron, Harrison J. Overturf, Paul Thiry, James J. Chiarelli, and McKinley, in conjunction with Harold Shefelman's Civic Center Advisory Commission, is working on a method of procedure for the development of the Seattle Civic Center Project.

Recent new members include: William J. Bain, Jr., Robert T. Carper, Harold Hovind, Henry Klein, Edward H. Marble, Azaria Rousso, Arnold Wisbeck, and Gordon B. Varey Associates.

## CALIFORNIA COUNCIL, AMERICAN INSTITUTE OF ARCHITECTS

William G. Balch, Los Angeles, was elected president of the renamed California Council of Architects at the organization meeting of the 1957 Council Board of Directors, recently held at the Hotel del Coronado.

The name of the statewide organization of architects was changed to the official name of California Council, The American Institute of Architects, at the same meeting.

Other officers named for the ensuing year were: L. F. Richards, Santa Clara, vice-president; Frank L.

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

LAS VEGAS: Walter F. Zick, President; Aloysius McDonald, Vice-President; Edward B. Hendricks, Sec.-Treas.; Directors: Walter F. Zick, Edward Hendricks, Charles E. Cox. Office of Secy., 106 S. Main St., Las Vegas.

Nevada State Board of Architects:
L. A. Ferris, Chairman; Aloysius McDonald, Sec.-Treas. Members: Russell Mills (Reno), Edward S. Parsons (Reno), Richard R. Stadelman (Las Vegas). Office 1420 S. 5th St., Las Vegas.

Northern California Chapter:
Wm. Stephen Allen, President; William Corlett, Vice-President; Worley K. Wong, Secretary; Donald Powers Smith, Treasurer; Robert S. Kitchen, Bernard Sabaroff, Corwin Booth and A. Appleton, Directors. Exec. Secty. May B. Hipshman. Chapter Office, 47 Kearny St., San Francisco.

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San Diego Chapter:
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Southwest Washington Chapter:
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Utah Chapter:
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Washington State Chapter:
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San Francisco Architectural Club:
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Producers' Council—Southern California Chapter:
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**Producers' Council — Northern California Chapter (See Special Page)**

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Construction Specifications Institute—San Francisco:
Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Conley, Secretary. Office of Secy., 1400 Egbert Ave., San Francisco 24.

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Hope, San Diego, secretary; Albert B. Thomas, Sacramento, treasurer; and John A. Norback of Downey, member-at-large of the Council Administrative Committee.

Ulysses Floyd Rible, Los Angeles, was nominated to succeed Donald Beach Kirby as Regional Director of the California-Nevada-Hawaii Regional Council of The American Institute of Architects. Formal election will take place in May in Washington, D. C.

Wallace Bonsall, Pasadena, chairman of the 1957 Convention Advisory Committee, announced the October 2-6 convention in Coronado would be devoted to the theme "Design Through Structure," with internationally known authorities both in and out of the profession taking part.

## SANTA CLARA AND SANTA CRUZ COUNTIES CHAPTER

Colored motion pictures of a trip to Mexico, taken by Birge Clark and Mrs. Clark, were highlights of an entertainment program of a joint meeting of Chapter members with members of the Women's Architectural League. A buffet dinner was served by the WAL.

Special Committee appointments announced by the Executive Committee included: Membership, Ed Myers and Walter Keller, Co-Chairmen; School Committee, Lynn Duckering; Building Industry, Fred Richards; Public Relations, Allen Walters and Neal Lindstrom, Co-Chairmen; Office Practice, Art Jemsen; Centennial Committee, Morgan Stedman, and Student Affairs, Frank Treseder.

## OREGON CHAPTER

Officers of the Chapter and the Centennial of The

(See page 32)

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Henry M. Layne, President; Howard A. Schirmer, Vice-President; H. L. Manley, Secy.-Treas. Directors—Chas. De Maria, Wesley T. Hayes, Henry M. Layne, H. L. Mamle, J. G. Middleton, J. F. Meehan, Clarence E. Rinne, A. A. Sauer, Howard A. Schirmer, and William T. Wheeler. Office of Secty., 9020 Balcom Ave., Northridge, Calif.

Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Walter L. Dickey, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

C. M Herd, President (Sacramento); L. F. Greene, Vice-President (Sacramento); J. F. Meehan, Secy.-Treas. Directors: C. M. Herd, L. F. Greene, L. G. Amundsen, W. A. Buehler, R. W. Hutchinson. Office of Secy., 68 Aiken Way, Sacramento.

American Society of Civil Engineers Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Sec.y-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

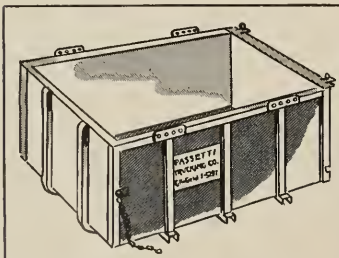
"Testing Laboratory Symposium" was the subject of a panel discussion at the March 5th meeting held in the Engineers Club, San Francisco, with Joseph Kelly, Engineering Department of the University of California serving as moderator and panelists consisting of local members of the California Association of Testing and Inspection Laboratories including Hales, Hanks, Hersey, Pittsburgh, and Woodward-Clyde Testing Laboratories. Chairmen of the meeting were Frank R. Killinger and Merrill Neumann.

Various phases of Inspection and Testing, including concrete, steel, wood, and soils were discussed.

Recent new members include: Arthur W. Weatherbe and Theodore C. York; George F. Durbin and Leonard O. Long, Affiliate Members; and Harry K. Okino, Junior Member.

## SAN FRANCISCO ENGINEERS NAMED TO STATE LEGISLATIVE GROUP

W. T. Hayes and W. W. Moore, members of the Structural Engineers Association of Northern California, San Francisco, have been named members of the Legislative Committee of the Structural Engineers Association of California, according to a recent announcement by Henry M. Layne, president SEAC.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## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

A panel discussion was held at the March meeting, in the Roger Young Auditorium, Los Angeles, on the subject "Registration of Engineers" with Steve Barnes, Consulting Structural Engineer, serving as moderator. Panel members included John D. Locke, Executive Secretary, California State Board of Registration for Civil and Professional Engineers; Asa G. Proctor, L. M. K. Boelter, Harold J. Clark, G. M. Simonson, George L. Sullivan, and William T. Wright.

Locke led the discussion with comments from the Board of Registration and a general open question and answer period followed.

Recent new members include: Robert W. Moodie and Walter L. Dickey, Members; Daniel E. Whelan, Jr., Edward L. Bovitz, Ulysses J. Montgomery, Jr., and Axel V. Pedersen, Associate; Jack P. Kourkene and Floyd Kielke, Junior; and Richard L. Allen, Affiliate.

## AMERICAN SOCIETY OF CIVIL ENGINEERS LOS ANGELES SECTION

Two students, William E. Lewis, graduate at USC; and the winner of the forthcoming student speaking contest who will represent USC at the Student Paper Contest to be held at the Pacific Southwest Council Convention in May, will be the principal speakers at the regular April meeting scheduled for the 10th in the Town and Gown Residence Hall, University of Southern California.

A short Academy Award winning movie entitled "The Face of Lincoln" will also be shown. The meeting is a joint meeting with the Student Chapter of USC.

SECTION MEETINGS: Junior Forum, April 10, 7 p.m. USC; **Sanitary Group,** April 17, 6:30 p.m., En-

Barbara Counties Branch, Robert L. Ryum, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy., c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Col. Wm. F. Cassidy, President; Cmdr. W. J. Valentine, 1st Vice-President; Col. Edwin M. Eads, 2nd Vice-President; Bob Cook, Secretary; C. D. Koerner, Treasurer. Directors Col. J. A. Graf, Capt. A. P. Gardiner, P. W. Kohlhaas, C. G. Austin and C. R. Graff.

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gineers Club, Biltmore Hotel; **Hydraulic Group,** April 3, 7:30 p.m., Rm. 2, State Div. Highways Bldg., 120 S. Spring St.; **San Bernardino-Riverside Counties Branch,** April 18, 6:30 p.m., Mikes Grill, Riverside; **Santa Barbara-Ventura Counties Branch,** April 9, 6:30 p.m., Loop's Restaurant, Ventura; **Orange County Branch,** April 5, 6:30 p.m., Revere House, Tustin; and **Structural Group,** April 3, 6:30 p.m., Roger Young Auditorium, Los Angeles.

## SOCIETY OF AMERICAN MILITARY ENGINEERS—SAN FRANCISCO POST

NEW OFFICES—Commander William J. Valentine, USN (second from right) President; Colonel Edwin M. Eads, USAF, 1st Vice-President (left to right); K. Webb Kennedy, US Forest Service guest speaker at Annual Dinner meeting; and Brigadier General William F. Cassidy, UA Army, retiring President.

Commander William J. Valentine, Deputy District Public Works Officer for the 12th Naval District, San Bruno, was elected president of the San Francisco Post, Society of American Military Engineers at the Society's recent annual meeting, succeeding Brigadier General William F. Cassidy, U. S. Army, head of the South Pacific Division, Corps of Engineers.

Colonel Edwin M. Eads, Air Force Installations Representative, South Pacific Region of San Francisco, was elected 1st Vice-President; C. R. Graff was named 2nd Vice-President; Joseph B. Boitano, Jr., Secretary; and Donald C. Bentley, Treasurer.

More than 100 members attended the annual meeting held in the Officers Club, Presidio of San Francisco.

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### FREDERICK H. RUNDALL JOINS ARCHITECT FIRM

Frederick H. Rundall, originator of the center core in department store design, has been named merchandising and traffic research analyist of Burke, Kober & Nicolais, Architectural firm of Los Angeles, according to Gene Burke, partner.

He was formerly store architect for Famous-Barr Department Stores, St. Louis, designing "Southtown" a 300,000 sq. ft. project recognized as the first department store in the nation designed around a center service core which runs vertically through the structure.

### PACIFIC CEMENT WILL INSTALL PIPE LINE

A 14-mile natural gas pipeline will be constructed from Santa Cruz to serve the Pacific Cement and Aggregates, Inc., cement plant at Davenport, California, according to an announcement by company officals.

The $780,000 project will provide a 12-inch line to the cement plant which will supply eight million cubic feet of natural gas per day upon completion, now scheduled for about the first of August.

### KRAFTILE HONORS TERM EMPLOYEES

A dual celebration was held by the foreman and executives of Kraftile Company for T. H. Elliott at the Claremont Hotel in Berkeley recently.

Elliott, veteran foreman, was presented with $300 in U. S. Savings Bonds by C. H. Kraft, company president, in appreciation of thirty years of continuous employment with the firm.

In addition a suede jacket was presented by George Burr, on behalf of employees and executives honoring Elliott's retirement which took place February 16th under the new Kraftile Retirement Plan.

### APPOINTED TO CALIFORNIA ARCHITECTURAL BOARD

Kenneth S. Wing, AIA Architect of Long Beach, was recently appointed a member of the California State Board of Architectural Examiners, succeeding Ulysses Floyd Rible of Los Angeles, resigned, by Governor Goodwin J. Knight.

Governor Knight also reappointed Clarence J. Paderewski of La Jolla to the Board of Architectural Examiners.

Wing, a native of Colorado, attended Long Beach schools and received his B.S. degree in Architecture from the University of Southern California. He began practice in Long Beach in 1930, and in 1953 was elected a Fellow of the American Institute of Architects. The new appointee has been very active in AIA Chapter activities in Southern California and is a member of the Church Architectural Guild of America; member of the Long Beach Planning Commission, and has served on the Citizen's Committee for Public Improvement of Long Beach.

Paderewski, originally appointed to the Board in 1950, will serve a new term ending January 15, 1961.

### ENGINEERS OPEN NEW OFFICES

Woodward, Clyde & Associates, consulting engineers of Oakland, recently opened two midwest branch offices, one in Omaha, Nebraska, and the other in Kansas City, Missouri.

The Omaha office is under Howard M. McMaster, former professor of Soil Mechanics at the University of Nebraska, while Dr. James L. Sherard is temporary head of the Kansas City office.

Announcement of the expansion was made by Richard J. Woodward, chairman of the Board of the engineering firm.

### ARLT NAMED PRESIDENT STANDARDS ENGINEERS

Herbert G. Arlt, Bell Telephone Laboratories, New Jersey, has been elected president of the Standards Engineers Society for 1957, a technical society with headquarters in New Jersey, and Sections in twelve U.S. and Canadian cities including Los Angeles.

Elected to serve as officers for the ensuing year with Arlt were: Franklin E. Powell, Standards Branch, Deputy Chief of Staff, Department of the Army, vice-president; Jean A. Caffiaux, Radio-Electronics-Television Manufacturers Association of New York, secretary; Charles J. Lawson, Sr., Director of Standards, International Business Machines Corporation, treasurer; and William E. Aksomitas, Pratt and Whitney Aircraft Co., director at large.

### H. E. FOREMAN RETIRES FROM GENERAL CONTRACTORS

H. E. Foreman, managing director of the Associated General Contractors of America, since 1940, will retire from office on April 1st, and the Executive Committee of the AGCA accepted his request for retirement with "regrets", according to Frank J. Rooney, association president.

In recognition of his "long and faithful service and his accomplishments in the management of the association" and in order to "make further use of his talents and experience" Foreman was named Association Advisor. Health consideration prompted his request for relief from the full time duties and responsibilities of the association.

At the time when Foreman became Managing Director the construction industry was heading into a period during which it became mobilized 75% in defense work by the time of Pearl Harbor. At that time it represented 2,500 members firms and had a national staff of 25 men and women. Today the organization has a membership of 6,700 firms and a staff of 56.

### ENGINEERING FIRM TAKES OVER DEVELOPMENT PROJECT

Quinton Engineers, Ltd., of Los Angeles, are working on master plans for the development of the new 8000-acre Diamond Bar development between Pomona and the Orange county line, for the Capital Company, owners in partnership with the Christiana Oil Corpn. in the site.

Development will include residential area, town center, commercial, golf courses, parks, school and church locations, highways and streets.

It is anticipated that the community will represent a population of 100,000 people when developed. Project engineer is Carl B. Hayward, consulting engineer. Estimated cost of the development is $10,000,000.

### ARCHITECT SELECTED

The architectural firm of Koblik & Fisher, 2203 13th St., Sacramento, has been commissioned by the Oroville Elementary School District of Oroville, to design additional facilities for the Central


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Elementary School and the East Side Elementary School in Oroville.

The work will comprise classrooms, multi-purpose rooms, and other educational facilities.

### DON G. OLSON NAMED SIMPSON REPRESENTATIVE

Don G. Olson, Simpson Logging Company representative in the Spokane, Washington, area the past two years has been promoted to district sales manager for insulation and hardboard products in Minneapolis, Minn.

He succeeds Ray Lavelle who has been named North Central regional sales manager of plywood and door products at Minneapolis and Chicago.

### LUMBERMAN LIKES HIS BASEBALL

Clay Brown, president of the Brown Timber Company of Portland, and general manager of the Fortuna Sawmills at Fortuna, California, and owner of the Eureka Redwood Lumber Company sales yard in Downey, California, is currently serving as president of the Portland Pacific Coast League baseball club.

Brown served as president of the M & M Wood Working Company prior to its integration with the Simpson Logging Company in 1956.

### DESIGNER NAMED FAIR CONSULTANT

Peter Muller-Munk, fellow and past president of the American Society of Industrial Designers, has been appointed consultant of planning American exhibits at the Brussels World's Fair of 1958, according to Howard S. Cullman, U.S. Commissioner general to the fair.

He will advise the office of the commissioner general on both the basic theme of the exhibit in the American Pavilion and on specfic methods of presentation.

Muller-Munk recently completed surveys of industrial design problems and potentials for Israel, Turkey and India as part of the U.S. Government Foreign Aid Program. Offices are maintained in Pittsburgh.

### MORRIS APPOINTED PACIFIC MANAGER

John J. Morris, III has been named district manager of the San Francisco sales office of the National Vulcanized Fibre Co. of Wilmington, Del., now located at 3351 El Camino Real in Atherton.

Morris has been associated with the company since 1951 and comes to the West Coast from the firm's Philadelphia office.

### N. W. PIEPER BECOMES ARCHITECTURAL PARTNER

Robert G. Muncaster, AIA Architect has announced the association of Norbert Wels Pieper as a partner in the firm of Muncaster and Pieper, Architects.

Offices for the general practice of architecture will be maintained as 57 Malaga Cove Plaza, Palos Verdes Estates, California.

### AUBREY HORN JOINS ARCHITECTURAL FIRM

Aubrey Horn has been appointed manager of the foreign relations department of Daniel, Mann, Johnson & Mendenhall, architects and engineers of Los Angeles, according to an announcement by Phillip J. Daniel, partner.

Horn has had wide experience in the design and construction of major projects in many parts of the world and will coordinate the Los Angeles firm's activities in London, Tokyo, Guam, Bangkok, and Lucknow, India.

### CLAYTON HIGH SCHOOL READIED

Associated Architects, 3833 Piedmont Avenue, Oakland, are completing drawings for construction of a 1-story, frame and stucco High School to be built in Clayton, Contra Costa county, for the Mt. Diablo Unified School District, Concord.

Facilities will include administration offices, 20-classrooms, gymnasium, shops, library, multi-use rooms, corridors and toilets. Estimated cost of the project is $2,000,000.

### NEW GOLF AND COUNTRY CLUB

The firm of Ernst & Lloyd (John C. Lloyd, architect), 2132 N. El Dorado St., Stockton, is completing drawings for construction of a 1-story wood frame Golf and Country Club building in Lodi for the Woodbridge Golf and Country Club.

The new building will provide administration offices, lounge, dinng room, bar, kitchen, shower and locker rooms and toilet facilities.


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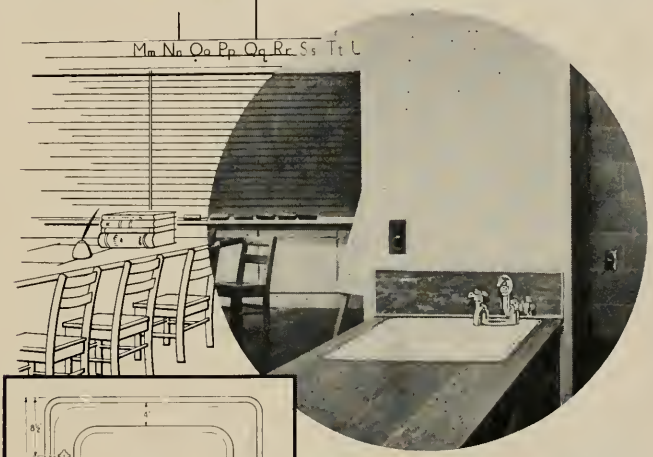


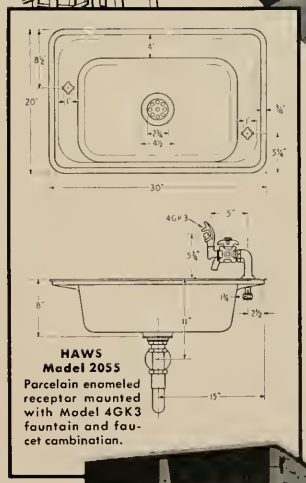


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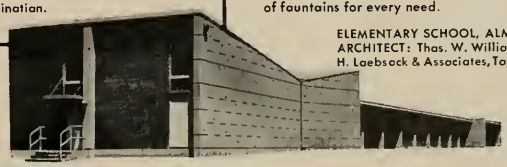

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ARCHITECT: Thos. W. Williomson, Victor H. Laebsack & Associates, Topeka, Konsas

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## ELMER K. ROSS RETIRES— McLAUGHLIN SUCCESSOR

Elmer K. Ross, manager of sales for M. Greenberg's Sons, San Francisco's 103 year old bronze foundry, since 1938, retired the first of March. During the nineteen years he has been in charge of the sales department, including sales promotion and advertising, Ross has seen the firm grow from a 6-man force to its present staff of twenty salesmen and two export firms.

ELMER K. ROSS
Retires

Ross is personally well-known to the trade, being a member of the American Water Works Association, the National Association of Fire Chiefs, the Marine Exchange, and very active in civic and Masonic affairs. He is a long time resident of Redwood City.

Succeeding Ross as sales manager is Martin R. McLaughlin, until his new appointment, vice-president in charge of sales at the Josam Mfg. Company of Michigan City, Indiana, where he has been in charge of sales eight of the past fifteen years he has been with the firm.

M. R. McLAUGHLIN
Sales Manager

Prior to becoming associated with the Josam Mfg. Company, McLaughlin was with some of the nation's leading plumbing supply manufacturers and jobbers.

McLaughlin will be in full charge of the M. Greenberg's Sons sales promotional activities and advertising.

## A.I.A. ACTIVITIES

(From page 27)

American Institute of Architects were honored at the 46th Annual Banquet of the Oregon Chapter held in the Columbia-Edgewater Country Club in Portland.

Guest speaker for the occasion was Nathaniel A. Owings.

## SAN FRANCISCO ARCHITECTURAL CLUB

Milton Bromberg, Apco Company, was the principal speaker at the regular March meeting held at

Gino's Restaurant. He discussed various types of panel construction, specifications and fire codes.

## ARCHITECTS RECEIVE ALASKA LICENSES

The Alaska Board of Engineers and Architects Examiners has announced the licensing of two architects to practice in Alaska.

Dale M. Roff of Juneau and Edward Y. Osborne of Fairbanks successfully passed the architectural examination.

Alaska residents registered by reciprocity with other states include Joyce S. Stevens, Architect, Fairbanks, and residents of other states granted registration by reciprocity to practice in Alaska include W. G. Brust, Frank Y. Toribara, John M. Morse, Marvin F. Damman and Robert H. Ross, architects of Seattle, Wash.

## CORNELIUS M. DEASY ELECTED AIA PRESIDENT SOUTHERN CALIFORNIA

Cornelius M. Deasy, Los Angeles architect, was elected 1957 president of the Southern California Chapter AIA at the recent annual meeting. Long active in Chapter and AIA activities, he has served as secretary of the Chapter; Director for three years; California Council Delegate, five years, and conducted weekly radio and television shows.

CORNELIUS M. DEASY
President

In 1954 Deasy was selected by the West German government as one of ten architects in the United States to tour Germany as an architectural advisor.

Other officers elected to serve during the ensuing year included: Robert Field, vice president; Stewart D. Kerr, treasurer; Edward H. Fickett, secretary; Burnett C. Turner, Stewart S. Granger, George V. Russell, and Paul R. Hunter, Directors. Miss Rita E. Miller was re-named Executive-secretary.


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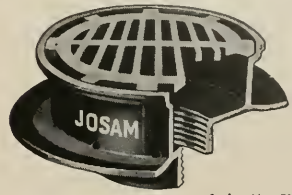


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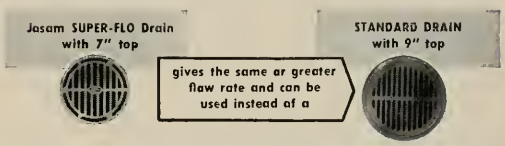


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## NEWS & COMMENT ON ART

(From page 8)

Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, announces a group of special Exhibitions and Events for March which include:

EXHIBITIONS: A number of special items from the Spring Rental Gallery; Handmade in India; Prints by Johnny Friedlander; Collections and Collectors; and the 76th Annual Painting and Sculpture Exhibition of the San Francisco Art Association.

SPECIAL EVENTS: Lecture Series on various art subjects; Lecture-Tours each Sunday afternoon at 3 o'clock; Wednesday evening Art Discussions, 8:30; and Adventures in Drawing and Painting — Sketch Club, Painting Classes; Studio Art for the Layman, and the Children's Art Classes each Saturday morning at 10 o'clock.

**ENGINEERING PARTNERSHIP:** William T. Wheeler and George W. Gray have formed Wheeler & Gray, Structural-Engineers, and will conduct business operations from 2033 W. 7th Street, Los Angeles 57.

## ALBERT C. MARTIN

(From page 7)

well demonstrates a means for a closer relationship between architectural education and the practice of architecture through a student participation wih professionals."

FIRST WINNERS: Rudy L. Veland and Donald R. Brown (left to right), first winners of the annual Albert C. Martin Grants in the USC School of Architecture: Dean Arthur B. Gallion, AIA, USC School of Architecture; and Albert C. Martin, Jr., of the Albert C. Martin & Associates, Los Angeles architects and engineers firm which established the Grants.

Albert C. Martin, Jr., FAIA, stated in his address to fifth year students and faculty members present at the Awards Dinner in Los Angeles' California Club:

"My only regret is that there are not forty awards to give, because there are that many eligible students who should have recognition.

"My brother, J. Edward Martin, and I received many advantages while in the SC School of Architecture. We recognized the value of these aids to us and now our firm wishes to pass along aid and recognition to other students."

Albert Martin was graduated from the SC School of Architecture in 1936 and Edward Martin attended the school, although he received his degree in engineering from the University of Illinois.

First winners of the annual grants are Donald R. Brown of Los Angeles, and Rudy L. Veland of Fontana, Calif.

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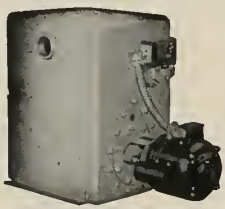

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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**INDUCTION HEATING PRACTICE. By D. Warburton-Brown, A.M.I.E.E. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $10.00.**

A practical book on the application of the high-frequency induction heating process to brazing, soldering, hardening, annealing, tempering and other heating requirements in engineering. This book is a detailed and up-to-date study of the process and deals particularly with its practical application to industrial problems. It is intended for the production engineer or executive interested in the possibilities of installing or extending induction-heating equipment, for the foreman or operator with the day-to-day job of operating equipment, and for all others concerned with heat treatment in engineering production. Various applications are given with general notes on each and specific examples with full production data.

**ENGINEERING INSPECTION MEASUREMENT AND TESTING. By H. C. Town, M.I.Mech.E., M.I.P.E. and R. Colebourne, A.M.I.Mech.E. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $8.75.**

This book should go far to meet the needs of students taking courses in Metrology, or preparing for examinations, and will be of practical interest to all engineers engaged in precision measurement and inspection.

Profusely illustrated with photographs and diagrams, the book first explains the function of the modern factory inspection department, and briefly traces the development, up to the present day, of recognized standards and methods of measurement. Chapters also deal with principles and practice of precision measurement and with comparators and other measuring and inspection machines.

**COAL MINING. By I. C. F. Statham, M.Eng., M.I.Min.E., F.G.S. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $15.00.**

Throughout the whole book emphasis has been laid on the practical nature of the work which the entrant will need. As far as possible mathematical problems have been rigorously excluded and have been replaced by careful descriptive passages incorporating the basic theory and illustrating the practical application of the theory. Special attention has been paid to the problem of illustrations, which are distributed profusely throughout the text, have been carefully chosen to portray the latest developments in machinery and mining technique.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Doors for aviation and industry.** New catalog illustrated with 20 typical installations, gives up-to-date facts, figures and planning data on new developments in doors for hangars, piers, warehouses, and other industrial buildings; features a "guide to door type selection" to help architect solve his entrance problem based upon use, door type, dimensions, method of operation, operating pattern and advantage; detail descriptions; architectural details. Copy available DEPT-A&E, International Steel Company, Evansville 7, Indiana.

**Distribution grilles.** New catalog gives detailed information on Difusing Grilles, Return Registers and accessories; data on grilles and registers and accessories with photographs of smoke tests illustrating the performance; diagrams of installation methods, specifications; in color. Free copy write DEPT-A&E, Barber-Colman Company, Rockford, Ill.

**Electronic air cleaners.** Two new catalogs, E-81 dealing with home installations, and E-82 for small commercial establishments: includes several models ranging in capacity from 1000 to 9600 cu. ft. of air per minute; fit any furnace in size from from 100,000 to 960,000 BTU, or any central air cooling unit from 3-ton to 25-ton capacity; vertical air flow models are available for the first time; removes air-borne contaminants


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**Concrete color hardener.** New color catalog on Kolorblen-Concrete Color Hardener and Kolorblen Wax Seal; illustrates use; color patch giving standard hues, with unlimited range of colors available; includes architectural specifications; job application and other useful data for architects, engineers, contractors, builders. Write for free copy DEPT-A&E, Conrad Solvig Co., 875 Bryant St., San Francisco, Calif.

**Asarco's "Products and Processes"** pictorial review. A 28-page, 4-color, booklet originally produced as a supplement to the company's 1956 Annual Report, contains more than 30 color and black and white photographs of the company's mining, smelting, refining and research operations; detailed maps show world-wide operations, sales and other facilities. Copy free, write DEPT-A&E, American Smelting & Refining Co., 120 Broadway, New York 5.

**Home area/liter.** New colored brochure gives illustrated detail of new home lighting fixture; diagrams showing installation method; specifications and uses. Free copy write DEPT-A&E, Graybar Electric Co., 1750 Alameda St., San Francisco.

**Embezzlement controls for business enterprises.** Practical methods of combatting embezzlement of money, merchandise and other materials are described in 32-page booklet by Lester A. Pratt, C.P.A.; check list for determining adequacy of a firm's embezzlement controls. Free copy write DEPT-A&E, Fidelity & Deposit Co., 1741 Fidelity Bldg., Baltimore 3, Maryland.

**Technical paper on corrosion.** Now available is a revealing technical paper on the corrosion of iron in water, with a descriptive technique on how to inhibit the corrosion of hot water tanks and other metal tank usage; also includes a tab capacity measuring table and other data helpful to the maintenance man, engineer, architect, contractor, and all others beset by the problems of fighting corrosion in hot water tanks; includes discourse on corrosion, the electro-chemical process, the inhibitation of corrosion, closed and open systems, cathodic protection, bi-metallic corrosion, corrosion inhibition methods and a discourse on new materials for lining hot water tanks and condensate receiver tanks. Free copy write DEPT-A&E, How E. Baker Co., 4248 Whiteside St., Los Angeles 63, Calif.

**Aluminum and steel sliding doors.** New 16-page metal products catalog (AIA File No. 16-E); special reference charts for all stock doors include dimensions of glass required for each door unit; suggested rough openings sizes and shipping weights of respective units; three basic lines of aluminum and steel sliding doors in stock sizes, including standard aluminum, standard steel, and heavy duty aluminum; other doors on a custom basis; illustrated, details; engineering staff maintained for consultation with architects throughout country. Free copy write DEPT-A&E, Arcadia Metal Products, Fullerton, California.

**Luminous ceilings, lighting equipment.** New 1957 condensed catalog (AIA 31 F) features luminous ceilings, modular lighting equipment, pendant mounted fixtures, and newest developments; 12 page booklet available write DEPT-A&E, The Wakefield Co., Vermilion, Ohio.


# ARCHITECTS & ENGINEERS...

THE SUPPLIERS QUANTITY SURVEY SERVICE—a new LeRoy service—furnishes quantity surveys to suppliers of construction products that enable them to submit bids on your projects WITHOUT the need of your plans.

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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$135.00 up (according to class of work).
Face Brick—Per 1 M laid—$200.00 and up (according to class of work).
Brick Steps—$3.00 and up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.50 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139 50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177 10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| Brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |

**Sheathing Papers—**

| | |
|---|---|
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |

**Felt Papers—**

| | |
|---|---|
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |

**Roofing Papers—**

| | |
|---|---|
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| **Sand—** | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**

Common (all brands, paper sacks), Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl. ..... 4.14

Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.

Cash discount on L.C.L. ..... 2%

Trinity White, Medusa White, Calaveras White — 1 to 100 sacks, $4.00 } sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20

Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalite |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | .67 | |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ¾-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ¼-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square.
Membrane waterproofing—4 layers of saturated felt, $13.50 per square.
Hot coating work, $6.00 per square.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

**ELECTRIC WIRING**—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 22c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.50 per sq. yd.
Battleship Linoleum—$5.00 sq. yd. & up laid.
Terazzo Floors—$2.00 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—20c to 35c.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | 33/32x2¼ | ½x2 | ⅜x2 | ¼x2 |
|---|---|---|---|---|
| | $ | $ | $ | $ |
| Clear Otd., White | $425 | $405 | | |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 33/32 x 2¼ | 390.00 | 381.00 |
| 33/32 x 2¾ | 375.00 | 355.00 |
| 33/32 x 3¼ | 395.00 | 375.00 |
| 33/32 x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| 33/32 x 2¼ First Grade | $390 00 |
| 33/32 x 2¼ 2nd Grade | 365.00 |
| 33/32 x 2¼ 2nd & Btr. Grade | 375.00 |
| 33/32 x 2¼ 3rd Grade | 240.00 |
| 33/32 x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| 33/32 x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400 00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per ☐ ft. |
| Double Strength Window Glass | .45 per ☐ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per ☐ ft |
| 75 to 100 | 1.74 per ☐ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per ☐ ft. |
| ¼ in. Rgh. Wire Glass | .80 per ☐ ft. |
| ⅛ in. Obscure Glass | .55 per ☐ ft. |
| ⅛ in. Obscure Glass | .70 per ☐ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per ☐ ft. |
| ¼ in. Heat Aborbing Wire | .72 per ☐ ft. |
| ⅛ in. Ribbed | .55 per ☐ ft. |
| ¼ in. Ribbed | .75 per ☐ ft. |
| ⅛ in. Rough | .55 per ☐ ft. |
| ¼ in. Rough | .75 per ☐ ft. |
| Glazing of above additional | $.15 to .30 per ☐ ft. |
| Glass Blocks, set in place | 3.50 per ☐ ft. |

### HEATING—Installed

**Furnaces—Gas Fired**

| | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |

**Water Heaters—5-year guarantee**

| | |
|---|---|
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards S4S Construction Grade

O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring ..... | $125.00 |
| "C" and better—all ..... | 215.00 |
| "D" and better—all ..... | 145.00 |
| Rwd. Rustic—"A" grade, medium dry ..... 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-S1S ..... $150.00
½-inch, 4.0x8.0-S1S ..... 200.00
¾-inch, per M sq. ft. ..... 260.00
Plysform ..... 160.00

**Shingles (Rwd. not available)—**

Red Ceder No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.

Average cost to lay shingles, $6.00 per square.

Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25

¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00

Average cost to lay shakes, $8.00 per square.

**Pressure Treated Lumber—**

Salt Treated ..... Add $35 per M to above
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50

Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).

Complete door unit, $21-$32.

Screen doors, $10 to $15 each.

Patent screen windows, $1.75 a sq. ft.

Cases for kitchen pantries seven ft. high, per lineal ft., upper $12 to $15; lower $14 to $15.

Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.

Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.

For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | |
|---|---|
| Two-coat work ..... per yard | $ .80 |
| Three-coat work ..... per yard | 1.20 |
| Cold water painting ..... per yard | .35 |
| Whitewashing ..... per yard | .20 |

| Linseed Oil, Strictly Pure (8asis 7¾ lbs. per gal.) | Raw | Boiled |
|---|---|---|
| Light iron drums ..... per gal. | $2.28 | $2.34 |
| 5-gallon cans ..... per gal. | 2.40 | 2.46 |
| 1-gallon cans ..... each | 2.52 | 2.58 |
| Quart cans ..... each | .71 | .72 |
| Pint cans ..... each | .38 | .39 |
| ½-pint cans ..... each | .24 | .24 |

| Turpentine (8asis, 7.2 lbs. per gal.) | Pure Gum Spirits |
|---|---|
| Light iron drums ..... per gal. | $1.65 |
| 5-gallon cans ..... per gal. | 1.76 |
| 1-gallon cans ..... each | 1.88 |
| Quart cans ..... each | .54 |
| Pint cans ..... each | .31 |
| ½-pint cans ..... each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ | $ |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch ..... | $2.50 lineal foot |
| 8-inch ..... | 3.00 lineal foot |
| 10-inch ..... | 4.00 lineal foot |
| 12-inch ..... | 5.00 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster ..... | $3.50 |
| Keene cement on metal lath ..... | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (latheJ only) ..... | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered ..... | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) ..... | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered ..... | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) ..... | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered ..... | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall ..... | $2.50 |
| 3 coats cement finish, No. 18 gauge wire mesh ..... | 3.25 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply .... $15.00 per sq. for 30 sqs. or over.

Less than 30 sqs. $18.00 up per sq.

Tile $40.00 to $50.00 per square.

No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25

5/2 No. 1 Ceder Shingles, 5 in. exposure, per square ..... 14.50

5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25

4/2 No. 1-24" Royal Ceder Shingles 7½" exposure, per square ..... 23.00

Re-coat with Gravel $5.50 up per sq.

Asbestos Shingles, $27 to $35 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes,
10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes,
10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes,
10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .26
Standard, 6-in. ..... .46
Standard, 8-in. ..... .66
Standard, 12 in. ..... 1.30
Standard, 24-in. ..... 5.41

Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M ..... $240.00
Standard, 8-in. per M ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless,
(unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. ... 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.

$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

¼-in. Rd. (Less than 1 ton) per 100 lbs. ..... $8.90
⅜-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.80
½-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.50
⅝-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.25
¾-in. & ⅞-in. Rd. (Less than 1 ton) ..... 7.15
1 in. & up (Less than 1 ton) ..... 7.10
1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.85 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.85 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.50 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜" ..... $ .18 - $ .35 sq. yd
Light shades slightly higher.
Cork Tile—$ .70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each ..... | $ .17 |

| Krettile: Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x ⅞-inch, plain ..... | $ .28 | $ .253 |
| 6 x 12 x ⅞-inch, plain ..... | .295 | .265 |
| 6 x 6 x ⅞-inch, plain ..... | .32 | .287 |

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

50c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required

# ARCHITECT AND ENGINEER
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

EXPLANATION—Building and construction materials are shown in major classified groups for general identification purposes with names and addresses of suppliers of materials listed in detail under group classification where name first appears—main offices are shown first with branch or district offices following. The numeral appearing in listings *(3) refers to the major group classification where complete data on the dealer, or representative, may be found.

**ADHESIVES (1)**
Wall and Floor Tile Adhesives
THE CAMBRIDGE TILE MFG. CO. *(35)

**AIR CONDITIONING (2)**
Air Conditioning & Cooling
UTILITY APPLIANCE CORP.
Los Angeles 58: 4851 S. Alameda St.
San Francisco: 1355 Market St., UN 1-4908

**ARCHITECTURAL PORCELAIN ENAMEL (2a)**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard & Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2291 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER (3)**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611
ROBCO OF CALIFORNIA, INC.
San Francisco: 260 Kearny St., GA 1-6720
Los Angeles: 2366 Venice Blvd., RE 1-4067
Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station
Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339
Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING (4)**
CROCKER FIRST NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BATHROOM FIXTURES (5)**
Metal
THE CAMBRIDGE TILE MFG. CO. *(35)
DILLON TILE SUPPLY COMPANY
San Francisco: 252 12th St., HE 1-1206
Ceramic
THE CAMBRIDGE TILE MFG. CO. *(35)

**BRASS PRODUCTS (6)**
GREENBERG'S, M. & SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4: 1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK (7)**
Face Brick
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
REMILLARD-DANDINI CO.
San Francisco 4: 400 Montgomery St., EX 2-4988

**BRONZE PRODUCTS (8)**
GREENBERG'S, M. & SONS *(6)
MICHEL & PFEFFER IRON WORKS *(38)

**BUILDING PAPERS & FELTS (9)**
ANGIER PACIFIC CORP.
San Francisco 5: 55 New Montgomery St., DO 2-4416
Los Angeles: 7424 Sunset Blvd.
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY
San Francisco 5: 55 New Montgomery St., EX 2-3066
Chicago, Ill.: 205 West Wacker Drive

**BUILDING HARDWARE (9a)**
THE STANLEY WORKS
San Francisco: Monadnock Bldg., YU 6-5914
New Britain, Conn.

**CABINETS & FIXTURES (9b)**
FINK & SCHINDLER CO., THE;
San Francisco: 552 Brannan St., EX 2-1513

**CEMENT (10)**
IDEAL CEMENT COMPANY (Pacific Division)
San Francisco 4: 310 Sansome St., GA 1-4100
PACIFIC COAST AGGREGATES, INC. *(11)

**CONCRETE AGGREGATES (11)**
Ready Mixed Concrete
PACIFIC COAST AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
Lightweight Aggregates
AMERICAN PERLITE CORP.
Richmond: 26th & B St. - Yd. 2, RI 4307

**CONCRETE ACCESSORIES (11a)**
Screed Materials
C & H SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE. 1-1345

**CONSTRUCTION SERVICES (11a)**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF (11b)**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS (12)**
THE BILCO COMPANY
New Haven, Conn.
Electric Doors
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089
Folding Doors
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971
Hollywood Doors
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas
Screen Doors
WEST COAST SCREEN DOOR CO.
(See above)

**FIRE ESCAPES (13)**
MICHEL & PFEFFER IRON WORKS *(38)

**FLOORS (15)**
Hardwood Flooring
HOGAN LUMBER COMPANY
Oakland: Second and Alice Sts., GL 1-6861
Floor Tile
GLADDING, McBEAN & CO. *(3)
KRAFTILE *(35)
Floor Tile (Ceramic Mosaic)
THE CAMBRIDGE TILE MFG. CO. *(35)
Floor Treatment & Maintenance
HILLYARD SALES CO. (Western)
San Francisco: 470 Alabama St., MA 1-7766
Los Angeles: 923 E. 3rd, TR 8282
Seattle: 3440 E. Marginal Way
Diversified (Magnesite, Asphalt Tile, Composition, Etc.)
LE ROY OLSON CO.
San Francisco 10: 3070 - 17th St., HE 1-1088
Sleepers (Composition)
LE ROY OLSON CO.

**GLASS (16)**
W. P. FULLER COMPANY
San Francisco: 301 Mission St., EX 2-7151
Los Angeles, Calif.
Portland, Ore.

**GRANITE (16a)**
PACIFIC CUT STONE & GRANITE CO.
414 South Marengo Ave., Alhambra, Calif.

**HEATING (17)**
S. T. JOHNSON CO.
Oakland 8: 940 Arlington Ave., OL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia 8, Pa.: 401 N. Broad St.
SCOTT COMPANY
San Francisco: 243 Minna St., YU 2-0400
Oakland: 113 - 10th St., GL 1-1937
San Jose, Calif.
Los Angeles, Calif.
UTILITY APPLIANCE CORP. *(21
Electric Heaters
WESIX ELECTRIC HEATER CO.
San Francisco 5: 390 First St., GA 1-2211
Los Angeles: 520 W. 7th St., MI 8096
Portland: Terminal Sales Bldg., BE 2050
Seattle: Securities Bldg., SE 5028
Spokane: Realty Bldg., MAdison 6175
San Diego: 514 Spreckels Bldg., BEImont 4-6082
Designer of Heating
THOMAS B. HUNTER
San Francisco 4: 41 Sutter St., GA 1-1164

**INSULATION AND WALL BOARD (18)**
LUMBER MANUFACTURING CO.
San Francisco: 225 Industrial Ave., JU 7-1760
PACIFIC COAST AGGREGATES, INC. *(11)
SISALKRAFT COMPANY *(9)
WESTERN ASBESTOS COMPANY
San Francisco: 675 Townsend St., KL 2-3868
Oakland: 251 Fifth Avenue, GL 1-2345
Stockton: 733 S. Van Buren, ST 4-9421
Sacramento 1331 - T St., HU 1-0125
Fresno: 434 - P St., FR 2-1600

**IRON—Ornamental (10)**
MICHEL & PFEFFER IRON WORKS, INC. *(13)

**INTERCEPTING DEVICES (10a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**LANDSCAPING (20)**
Landscape Contractors
HENRY C. SOTO CORP.
Los Angeles: 13,000 S. Avalon Blvd., ME 4 6617

**LIGHTING FIXTURES (21)**
SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER (22)**
Shingles
LUMBER MANUFACTURING CO. *(18)

**METAL GRATING (22a)**
KLEMP METAL GRATING CORPN.
6601 S. Melvina, Chicago 38, Ill., POrtsmouth 7-6760

**METAL FRAMING (22b)**
UNISTRUT SALES OF NORTHERN CALIFORNIA
Berkeley: 1000 Ashby Ave., TH 3-4964

**MARBLE (23)**
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles 4: 3522 Council St., DU 2-6339

**MASONRY (23a)**
GENERAL CONCRETE PRODUCTS, INC.
Van Nuys, 15025 Oxnard St., ST 5-1126 & ST 7-3289

**METAL LATH EXPANDED (24)**
PACIFIC COAST AGGREGATES, INC. *(11)

**MILLWORK (25)**
FINK & SCHINDLER, THE; CO: *(9b)
LUMBER MANUFACTURING COMPANY *(18)
MULLEN MANUFACTURING COMPANY
San Francisco: 60-80 Rausch St., UN 1-5815
PACIFIC MANUFACTURING COMPANY
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, SC 607
Los Angeles, 6820 McKinley Ave., TH 4196

**PAINTING (26)**
W. P. FULLER COMPANY *(16)
Paint

**PLASTER (27)**
Interiors - Metal Lath & Trim
PACIFIC COAST AGGREGATES, INC. *(11)
Exteriors
PACIFIC PORTLAND CEMENT COMPANY *(28)

**PLASTIC CEMENT (28)**
IDEAL CEMENT COMPANY
San Francisco: 310 Sansome St., GA 1-4100

**PLUMBING (29)**
THE HALSEY TAYLOR COMPANY
Redlands, Calif.
Warren, Ohio
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
THE SCOTT COMPANY *(17)
HAWS DRINKING FAUCET COMPANY
Berkeley 10: 1435 Fourth St., LA 5-3341
CONTINENTAL WATER HEATER COMPANY
Los Angeles 31: 1801 Pasadena Ave., CA 6178
SECURITY VALVE COMPANY
Los Angeles 31: 410 San Fernando Rd., CA 6191

**PUMPING MACHINERY (29)**
SIMONDS MACHINERY COMPANY
San Francisco: 816 Folsom St., DO 2-6794
Los Angeles: 455 East 4th St., MU 8322

**PRESS (Punch) (29a)**
ALVA F. ALLEN
Clinton, Missouri

**RANGE-REFRIGERATOR (29a)**
Combinations
GENERAL AIR CONDITIONING CORPN.
Los Angeles 23: 4542 E. Dunham St.
San Francisco: 1355 Market St., KL 2-2311, Ext. 104

**RESILIENT TILE (30)**
LE ROY OLSON CO. *(15)

**ROOF TRUSSES (30a)**
EASY BOW ENGINEERING & RESEARCH CO.
13th & Wood St., Oakland, Cal., GLencourt 2-0805

**SAFES (30a)**
HERMANN SAFE CO.
San Francisco, 1699 Market St., UN 1-6644

**SEWER PIPE (31)**
GLADDING, McBEAN & CO. *(13)

**SHADES (31a)**
SHADES, Inc.

**SHEET METAL (32)**
Windows
DETROIT STEEL PRODUCTS COMPANY
Oakland 8: 1310 - 63rd St., OL 2-8826
San Francisco: Russ Building, DO 2-0890
MICHEL & PFEFFER IRON WORKS, INC. *(13)
PACIFIC COAST AGGEGATES, INC. *(11)
Fire Doors
DETROIT STEEL PRODUCTS COMPANY
Skylights
DETROIT STEEL PRODUCTS COMPANY

**SOUND EQUIPMENT (32a)**
STROMBERG-CARLSON CO.
Burlingame, 1805 Rollins Rd., OX 7-3630
Los Angeles, 5415 York Blvd., CL 7-3939

**STEEL—STRUCTURAL (33)**
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland: 2345 N. W. Nicolai, BE 7261
Seattle 1331 3rd Ave. Bldg., MA 1972
Salt Lake City: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland: 18th & Campbell Sts., GL 1-1767
JUDSON PACIFIC-MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 N. Montgomery St., GA 1 0977
Los Angeles: Edison Building
Seattle: White-Henry-Stuart Building
Salt Lake City: Walker Bank Building
Denver: Continental Oil Building
SAN JOSE STEEL COMPANY
San Jose 195 North Thirtieth St., CO 4184

**STEEL—REINFORCING (34)**
REPUBLIC STEEL CORP. *(33)
HERRICK IRON WORKS *(33)
SAN JOSE STEEL CO. *(33)
COLUMBIA-GENEVA DIVISION, U. S. STEEL CORP. *(33)

**SWIMMING POOL FITTINGS (34a)**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**CLAY TILE (35)**
THE CAMBRIDGE TILE MFG. CO.
Redwood City: 132 Wilson St.
Los Angeles 19: 1335 S. La Brea, WE 3-7800

GLADDING, McMEAN & CO. *(13)
KRAFTILE
Niles, Calif.: Niles 3611
San Francisco 5: 50 Hawthorne St., DO 2-3780
Los Angeles 13: 406 South Main St., MU 7241

**TIMBER—REINFORCING (36)**
Trusses
Tacoma, Wash.
WYERHAEUSER SALES CO.
St. Paul, Minn.
Newark, N. J.
Treated Timber
I. H. BAXTER CO.
San Francisco 4: 200 Bush St., YU 2-0200
Los Angeles 5: 3450 Wilshire Blvd., DU 8-9591

**TRUCKING (36a)**
PASSETTI TRUCKING CO.
San Francisco 3: 264 Clementina St., GA 1-5297

**WALL TILE (37)**
THE CAMBRIDGE TILE MFG. CO. *(35)
GLADDING, McBEAN & CO. *(13)
KRAFTILE COMPANY *(35)

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE. 1-1345

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C. 681 E. Hastings St.
TECON PRODUCTS, INC.
Seattle 4, Washington 304 So. Alaskan Way

**WINDOWS STEEL (38)**
DETROIT STEEL PRODUCTS CO. *(32)
MICHEL & PFEFFER IRON WORKS
212 Shaw Road, So. San Francisco, PLaza 5-8983
PACIFIC COAST AGGREGATES, INC. *(11)

**GENERAL CONTRACTORS (39)**
BARRETT CONSTRUCTION CO.
1800 Evans Ave., AT 8-1471
Los Angeles: 234 W. 37th Place, AD 3-8161
J. BETTANCOURT
San Bruno: 1015 San Mateo Ave., JUno 8-7525
DINWIDDIE CONSTRUCTION COMPANY
San Francisco: Crocker Building, YU 6-2718
CLINTON CONSTRUCTION COMPANY
San Francisco: 923 Folsom St., SU 1-3440
MATTOCK CONSTRUCTION COMPANY
San Francisco: 604 Mission St., GA 1-5516
E. H. MOORE & SONS
San Francisco: 693 Mission St., GA 1-8579
PARKER, STEFFENS & PEARCE
San Francisco: 135 So. Park, FX 2-6639

**TESTING LABORATORIES (ENGINEERS & CHEMISTS (40)**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2 70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3 00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2 995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.


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## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**CHURCH BLDG.**, Torrance, Los Angeles county. Evangelical Lutheran Church of Torrance, owner. Reinforced brick and frame church building, composition shingle roof, asphalt tile on concrete slab, laminated trusses, interior plaster and drywall, aluminum sash, forced air heating; 3300 sq. ft. area. ARCHITECT: Edward P. Davis, 1251 Inverness Drive, Pasadena. GENERAL CONTRACTOR: Minniear Const. Co., 5125 Cathann, Torrance.

**CAFETERIA BLDG.**, County Fair Grounds, Merced. 35th Dist. Agricultural Association, Merced, owner. 1-Story cafeteria building at the Merced County Fair Grounds — $34,998. GENERAL CONTRACTOR: Vern Fitchett Const. Co., 1328 W. 19th St., Merced.

**POST OFFICE ADDN.**, Long Beach, Los Angeles county. Dr. D. J. Davenport, Long Beach, owner. Addition to present U.S. Post Office building, built-up composition roofing, concrete slab, plycore and asphalt tile floors, plaster interior, suspended ceiling heaters, pipe, rail, fir slab and metal doors, intermediate steel projected and security sash, fluorescent lighting; 1700 sq. ft. area. ARCHITECT: Louis S. Miller, Suite 202, 3970 Atlantic Ave., Long Beach. GENERAL CONTRACTOR: William H. Harbert, 3731 Cedar Ave., Long Beach.

**SOCIAL HALL & CLASSROOM**, Gilroy, Santa Clara county. St. Stephens Episcopal Church, Gilroy, owner. 1-Story frame and stucco construction, wood exterior, social hall and classrooms — $42,959. ARCHITECT: Higgins & Root, 220 Meridian Road, San Jose. GENERAL CONTRACTOR: Gordon E. Farotte, 546 5th St., Gilroy.

**LIONS CLUB BLDG.**, Long Beach, Los Angeles county. Bellmont Shore Lions Club, Long Beach, owner. 1-Story concrete block club building—future 2-story —composition and gravel roofing, steel girders, plaster partitions, exposed block interior, acoustical plaster ceilings, concrete slab and rubber tile, louvered windows, metal sliding doors, air conditioning, laminated plastic bar top, stainless steel kitchen, metal toilet partitions, field stone veneer; 3750 sq. ft. area. ENGINEER: Ross Engineering Co. and Paul O. Neble, Associate, 6173 Cherry Ave., Long Beach. GENERAL CONTRACTOR: Robert L. Means, 2453 Studebaker Road, Long Beach.

**OFFICE BLDG. & PARKING LOT**, Sacramento. Danis Cladianos, owner. 2-Story office building, steel frame, concrete block construction, stucco exterior, porcelain enamel front; 6300 sq. ft. area—$110,000. ARCHITECT: Walter Lewis & Associates, 2741 Tioga Way, Sacramento. GENERAL CONTRACTOR: Edward S. Wsprada, Sacramento.

**BREWERY REMODEL**, San Jose, Santa Clara county. Falstaff Brewing Co., San Jose, owner. Interior remodel of brewery building—$30,000. ENGINEER: Holmes & Narver Inc., 751 S. Figueroa St., Los Angeles. GENERAL CONTRACTOR: Cahill Bros., 350 Sansome St., San Francisco.

**COMMERCIAL BLDG.**, Walnut Creek, Contra Costa County. Hendricks Piano Company, Walnut Creek, owner. 2-Story concrete block, laminated wood roof beams, passenger elevator, air conditioning; 8000 sq. ft. area—$88,741. ARCHITECT: Design Associates, 2090 Willow Pass Road, Concord. GENERAL CONTRACTOR: Romley Const. Co., 2780 Mt. Diablo Blvd., Walnut Creek.

**JR. HIGH SHOOL REMODEL**, Sierra Ordinance Depot, Herlong, Lassen county. Housing & Home Finance Agency, San Francisco, owner. Remodel and construction addition, structural steel and wood frame, enamel steel panels; new shop building, lockers and showers; remodel existing building—$274,800. ARCHITECT: Robert C. Kaestner, 210 N. Encina St., Visalia. GENERAL CONTRACTOR: Staiger Const. Co., 325 P. St., Fresno.

**EASTMAN SALES BLDG.**, San Francisco. Eastman Kodak Co., 241 Battery St., San Francisco, owner. Three-story combination sales and warehouse building, 1st Floor, 57,000 sq. ft. area, warehouse and some offices; 2nd Floor 52,000 sq. ft. area, warehouse and offices, and 3rd Floor, 23,700 sq. ft. of area; offices, assembly hall, mechanical rooms, cafe, roof garden; reinforced concrete, structural steel, cast in place concrete pile, brick veneer, ceramic veneer, aluminum sash and frame, sun control louvre, steel rolling doors, steel


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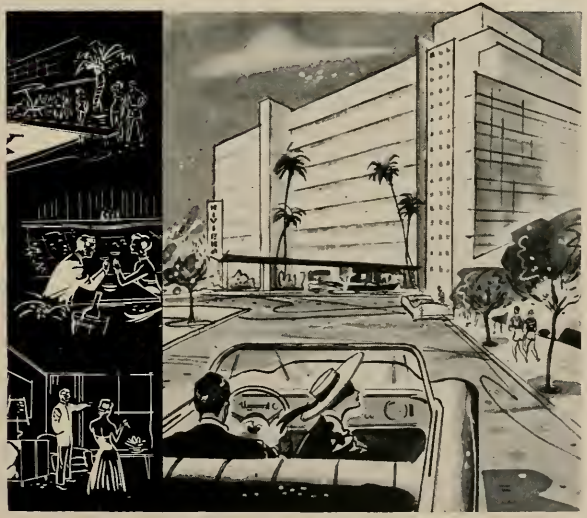

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roof deck, metal lath and plaster, moveable partitions — $1,725,000. ARCHITECHT: Kitchen & Hunt, 40 1st St., San Francisco. STRUCTURAL ENGINEER: H. J. Brunnier, Sharon Bldg., San Francisco. MECHANICAL ENGINEER: Vandament & Darmsted, 156 2nd St., San Francisco. GENERAL CONTRACTOR: Louis C. Dunn, Inc., 681 Market St., San Francisco.

**2-ELEMENTARY SCHOOLS,** Los Altos, Santa Clara county. Loss Altos Elementary School District, Los Altos, owner. Contracts for two schools were awarded: the Portland Avenue Elementary School comprising 8-classrooms, kindergarten and toilet rooms; frame and stucco construction —197,800 was awarded to GENERAL CONTRACTOR: Dickman Const. Co., 1702 Miramonte Ave., Mt. View: the Almond Elementary School, comprising 8 clashsrooms, kindergarten and toilet facilities was awarded to GENERAL CONTRACTOR: Dickman Const. Co., 1702 Miramonte Ave., Mt. View. ARCHITECT: Lawrence W. Gentry, 144 State Street, Los Altos.

**YOUTH CENTER,** Lakewood, Los Angeles county. Lakewood Community Youth Center, Inc., Lakewood, owner, frame and stucco split-level youth center; recreation hall 35x60 ft.; indoor-outdoor snack bar, fireplace and outdoor barbecue, kitchen facilities and fountain, directors office, storage rooms, restrooms, concrete slab, laminated wood beams, composition and gravel roofing, roof insulation, acoustical treatment, aluminum sliding doors, laminated plastic counter tops; 3188 sq. ft. of area. ARCHITECT: Power and Daniel, 3811 Long Beach Blvd., Long Beach. GENERAL CONTRACTOR: C. G. Millhouse, 9432 E. Firestone Blvd., Downey.

**HORSE BARNS,** Fairgrounds, Stockton San Joaquin county. State of California, 1120 N. St., Sacramento, owner. 18-Wood frame barns, 4 wood restroom buildings, removal of trees, site grading, installing storm drains, gas, water, sewage, electrical lines—$477,289. ARCHITECT: Anson Boyd, Div. of Architecture, State of California, Sacramento. GENERAL CONTRACTOR: Barrett Const. Co., 1800 Evans Ave., San Francisco.

**MEDICAL BLDG.,** Long Beach, Los Angeles county. Remodel existing residence into modern medical office building in Long Beach; frame and stucco construction, composition and gravel roofing, steel framing, stainless steel louvers, fixed plate glass, glass entrance door and store front, sliding aluminum door, cork and vinyl tile flooring, forced air heating and air conditioning, hardwood paneling; parking area. ARCHITECT: Killingsworth, Brady & Smith, 3833 Long Beach Blvd., Long Beach. GENERAL CONTRACTOR: Stromberg & Son, 4156 Carfax Ave., Long Beach.

**LANDSCAPING,** Kaiser Hospital, Harbor City, Los Angeles county. Kaiser Foundation Hospital, Harbor City, owner. Complete landscaping of the Kaiser Hospital grounds in Harbor City including, grading, fencing, sprinkler irrigation system, and planting—$26,000.

**PAROCHIAL SCHOOL,** Antioch, Contra Costa county. Roman Catholic Archbishop of San Francisco, San Francisco, owner. Construction of an addition to the school and Convent at the Holy Rosary Parish in Antioch — $71,933. ARCHITECT: Arnold & Francis Constable, 95 Spence Ave., Sausalito. GENERAL CONTRACTOR: Murray R. Kay, 501 7th St., Antioch.

**CHURCH,** Covenant Church, Glendale, Los Angeles county. Covenant Church of the Foothills, Glendale, owner. Stone veneer and frame and stucco construction, composition shingle roofing, laminated wood beams, forced-air heating, asphalt tile, asphaltic concrete paving, rest rooms; 400 sq. ft. of area; seating capacity for 200 persons. ARCHITECT: Douglas H. Byles, 919 E. California Street, Pasadena. GENERAL CONTRACTOR: Samuelson Bros., 3441 Ocean View Blvd., Glendale.

**OFFICE ALTERATIONS,** United Air Lines, San Francisco. United Air Lines, Inc., San Francisco, owner. Alterations and remodel of the third floor of the telephone sales area at Post and Powell streets —$77,658. ARCHITECT: Anshen & Allen, 461 Bush St., San Francisco. GENERAL CONTRACTOR: Mattock Const. Co., 220 Clara St., San Francisco.

**TELEPHONE BLDG.,** Pasadena, Los Angeles county. Pacific Telephone & Telegraph Company, Los Angeles, owner. Telephone information building in Pasadena; reinforced concrete construction, concrete slab, asphalt tile, acoustic tile, heating and ventilating, electrical, plumbing—$341,068. ARCHITECT: Allison & Rible, 3670 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Louis C. Dunn, 3101 Wilshire Blvd., Los Angeles.

**COUNTY OFFICE BLDG.,** Redding, Shasta county. County of Shasta, Redding, owner. 2-Story reinforced concrete construction; 13,500 sq. ft. area—$234,992. ARCHITECT: Smart & Clabaugh, 1101 Yuba St., Redding. GENERAL CONTRACTOR: George Farley & Curtis Const. Co. (J-V), P. O. Box 1484 Redding.

**ELKS CLUB,** Paramount. Elks Club of Paramount, owner. Concrete block club building, tapered steel girders, built-up composition roofing, concrete slab and asphalt tile floors, plaster interior, forced air heating and air conditioning; 2000 sq. ft. or area. ENGINEER: Henry A. Ross and Paul A. Neble, Associate, 6173 Cherry Ave., Long Beach.

**NEW HIGH SCHOOL,** Crescent City, Del Norte county. Del Norte County High School District, Crescent City, owner. Reinforced concrete and structural steel construction—$1,421,000. ARCHITECT: Freeman, Hayslip, Tuft & Hewlett, 2040 S. W. 3rd Street, Portland, Oregon. GENERAL CONTRACTOR: B. & R. Const. Co., 110 Market Street, San Francisco.

**CHURCH CLASSROOMS,** Lutheran Church, Lakewood, Los Angeles county. Lutheran Church of Lakewood, owner. 2-Story, 5-classroom, concrete block school building, composition and gravel roofing, concrete slab, asphalt tile, louvred sash, plaster interior, acoustical tile, forced air heating, chalk and tack boards; 5400 sq. ft. of area. STRUCTURAL ENGINEER: Harold E. Ketchum, 3711 Cedar Ave., Long Beach. GENERAL CONTRACTOR: Ernest Adler, 622 Cartegena, Long Beach.


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# IN THE NEWS

### AUTOMOBILE SALES AND SERVICE BLDG.

Architects Lillis & Smith of Vallejo, are completing plans and specifications for the construction of a new Automobile Sales and Service building to be built in Napa for Peter Gasser.

The new facility will contain some 22,000 sq. ft. of area; will be 1-story in height, and will be of strescrete and concrete block construction with plate glass front. Estimated cost of the project is $150,000.

### TELEPHONE EXCHANGE BUILDING FOR STANFORD

The Board of Trustees of Stanford University, Palo Alto, has commissioned the San Francisco architectural firm of Spencer & Ambrose to design a new Telephone Exchange building to be built on the university campus.

Preliminary plans call for a portion of the new structure to be built underground, in keeping with today's trends in the atomic era.

### CHURCH SCHOOL FOR PHOENIX

Architects Comeau & Brooks of Sherman Oaks, have been commissioned to prepare preliminary drawings for construction of a reinforced masonry church-school in Phoenix, Arizona, for Saints Simon and Judes Parish, Roman Catholic Archbishop of Tucson.

Facilities will include 5 classrooms; mission tile roof, concrete slab and resilient flooring, heating and ventilating.

### APPOINTED ARCADIA METAL DISTRIBUTOR

The Rio Grande Steel Products Company, Inc., of Albuquerque, New Mexico, has been appointed distributor to handle Arcadia Metal Products throughout New Mexico, according to D. P. Johnson, national sales manager of Arcadia, Fullerton, California.

Rio Grande Steel Products has been active in the building products field since 1934 and will carry the full line of Arcadia products.

### LIVESTOCK EXHIBIT STALL AT SALINAS

Architect Jerome Kasavan, 7 Winham St., Salinas, is completing drawings for construction of frame exhibit stalls at the Kings City-Salinas Valley Fair Grounds in King City.

Estimated cost is $12,000.

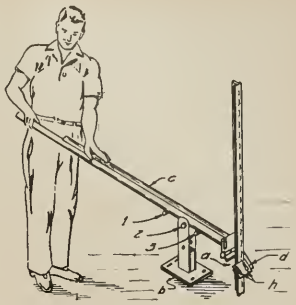
### PLANS NEW LIBRARY

Architect Harold Gimeno, 1416½ N. Main St., Santa Ana, is preparing plans for construction of a new $700,000 public library building for the civic center of Santa Ana.

Francis Keally of the firm of Keally & Paterson of New York will serve as library consultant for the new building and will confer on the planning and construction.

### HEALTH CENTER PLANS APPROVED

Architect M. A. Nishkian of Long Beach, has completed plans and specifica-

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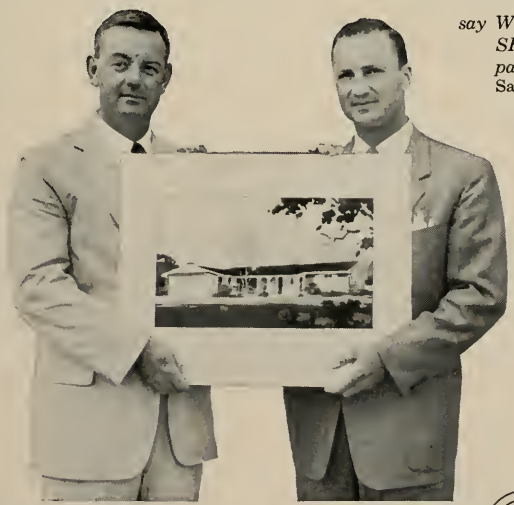

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tions for construction of improvements to the Monrovia Health Center which will cost $28,750.

An addition to the center is planned to house mechanical equipment for a new air conditioning system.

### NEW GRADE SCHOOL FOR AZUSA PLANNED

Architects Balch, Bryan, Perkins & Hutchason, Los Angeles, have completed plans for construction of a new $870,000 grade school in Azusa for the Gladstone School District.

Facilities will be provided for 800 children, with an administration building of 6500 sq. ft., while the entire project will include some 53,000 sq. ft.

Construction will be tilt-up concrete panel and reinforced brick for a multi-purpose building; 22 classrooms, 2-kindergarten rooms and covered walks will join all buildings.


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### NEW LA MESA CITY HALL

Architect George C. Hatch, 1405 5th St., San Diego, has completed drafting plans, which have been approved by the La Mesa City Council, for construction of a new City Hall building in La Mesa for the City of La Mesa.

### W. M. SCHULTE IS MADE MEMBER KRAFTILE BOARD

W. M. Schulte was elected a member of the Board of Directors of the Kraftile Company at the firm's 32nd Annual Meeting recently, being named secretary-treasurer of the Niles, California, manufacturing company, succeedng J. B. Lewis and J. A. McDonald, previous members to serve as secretary-treasurer.

Other officers elected included Chas. W. Kraft, president; L. R. Alt, vice-president, in charge of production; J. B. Crawford, vice-president, in charge of sales; B. A. Gordon of Chicago; and J. B. Lewis and J. A. McDonald, members of the Board of Directors.

Mrs. Lorraine Lisle was named assistant secretary-treasurer, the first woman to become an officer in the company.

Kraft reported to stockholders that in spite of absorbing flood losses in 1955 and 1956 amounting to $156,767 a net profit of 2.8% was shown in 1956 with the company keeping up to schedule on its modernization program. An additional $58,864 was invested in new facilities in 1956 bringing the investment in furnishing a job up to $10,810 per factory employee, for plant and equipment, a figure above the national average.

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### NEW JUNIOR HIGH SCHOOL

Architect Charles F. Dean, 1521 I Street, Sacramento, is completing drawings for construction of a new Junior High School in Pittsburg for the Pittsburg Unified High School District of Contra Costa County.

### CITY HALL ANNEX FOR WALNUT CREEK

Architect Leonard H. Ford, 1744 N. Main Street, Walnut Creek, is completing drawings for construction of a 1-story con-


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crete block Annex to the City Hall in Walnut Creek for the City of Walnut Creek.

The building is of concrete block and frame construction with a double "T" roof slab roof, and will contain 4,500 sq. ft. of area.

### PLANNING DIRECTOR FOR ARCHITECT FIRM

George T. Hayman, industrial engineer, has joined the staff of L. W. Davidson & Associates, architects and engineers of Los Angeles, as director of research and planning.

He will also serve in the same capacity for North American Industrial Engineers, Inc., an affiliate company.

### NEW TYPE AIR CONDITIONER

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### NEW HIGH SCHOOL FOR SAN LEANDRO

The architectural firm of Schmidts, Hardman & Wong, 1320 University Ave., Berkeley, is preparing plans and specifications for construction of a new High School in San Leandro for the San Leandro Unified School District.

The new educational facilities will include an administration office, classrooms, cafeteria, library, toilet rooms, and corridors.

### ARCHITECTS AND BUILDERS GIVEN DESIGN OPPORTUNITY

Plans for annual awards to Southern California architects and builders for the best design in the field of health and comfort conditioning have been announced by the Institute of Heating and Air Conditioning Industries, through R. E. Harkins, managing director of the Institute.

William L. Hoyt, Jr., chairman of the Institute's standards committee, will serve as chairman of an Awards Committee, which will consist of a manufacturer, supplier, contractor and utility representative, and awards will be made at the annual dinner in December.

Objective of the program, according to Robert N. Hall, president is to upgrade installations for better health and comfort through heating and air conditioning.

### ARCHITECT MOVES OFFICES

The architectural firm of Beland and Gianelli, have recently moved their offices to Suite A, 1221 Monterey Street, Vallejo, California, where they are now engaged in the general practice of architecture.

The firm comprises John A. Beland, AIA, and Robert J. Gianelli, AIA, Architects.

### PRESBYTERIAN CHURCH PLANNED

Architect Alfred W. Johnson, 165 Jessie St., San Francisco, is completing plans and specifications for construction of a wood frame and stucco First Presbyterian Church in Mt. View for the First Presbyterian Church.

### HARRINGTON SPEAKER AT SPECIFICATIONS INSTITUTE

R. W. Harrington, manager of the Clay Brick and Tile Association, was the principal speaker at a recent meeting of the San Francisco Chapter of the Construction Specifications Institute.

His talk, illustrated with color slides,


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gave the answers of modern materials and design to the ancient problems of getting the smoke from the fireplace up the chimney instead of into the room, and how to strengthen brick walls by the use of steel reinforcing.

Modern types of brick made to provide room for reinforcing steel were demonstrated in detail, as was the importance of handling any type of mortar and grout.

### NATIONAL ELECTRIC PRODUCTS OPEN LOS ANGELES OFFICES

In connection with the observance of "National Electrical Week" during February, the National Electric Products Corpn., formally opened their new Los Angeles district sales offices and West Coast warehouse at 6400 Corvette St., in the Vail Field central manufacturing district.

The Los Angeles warehouse is the newest of ten such facilities being used to back up stocks of National Electric's distributors throughout the country.

### C. L. SLY, JR. NAMED FIRM'S OFFICE MANAGER

Cline, Zerkle & Agee, Engineers and Architects, have announced the appointment of C. L. Sly, Jr. as office manager of the firm.

The firm, with offices at 1810 6th Street in Berkeley, engages in building design throughout California.

### BUSINESS COLLEGE

Architect Bruce Heiser, 251 Post St., San Francisco, is preparing drawings for construction of a new Business College in San Francisco for Heald's Business College.

The new building will be 3-stories high, steel and concrete construction, and contain 35,000 sq. ft. of area. Facilities will be provided for administration offices, classrooms, corridors, lockers and toilet facilities.

### WILLIAM BLACKFIELD TO REGIONAL COUNCIL

William Blackfield, vice president of Region 19 of the National Association of Home Builders has been named Chairman of the Western Division Regional Council of the association, and in his new capacity will be chairman of the vice presidents of the regions west of the Mississippi River and the Hawaiian Islands.

A resident of Oakland, he is owner and president of the Blackfield Construction Company of San Francisco who have done extensive community development throughout Northern California.


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# The man who named Tombstone, Arizona

THE SURPRISED government scout from Camp Huachuca reined his horse to a stop at the sight of Ed Schieffelin. And when Schieffelin admitted he was actually living and prospecting in Apache country, the scout warned him, "All you'll ever find'll be your tombstone."

But Schieffelin didn't scare easy. When he struck a silver lode in the desolate, dangerous hills of Arizona Territory, he called his first mine "Tombstone." And, unknowingly, he gave a name to a borning, brawling community soon to be notorious as one of frontier America's tough towns.

The Tombstone mine itself never amounted to anything. But Schieffelin just kept on prospecting — and within a few years, he turned out to be a millionaire. The hills he had risked his life in were practically made of silver.

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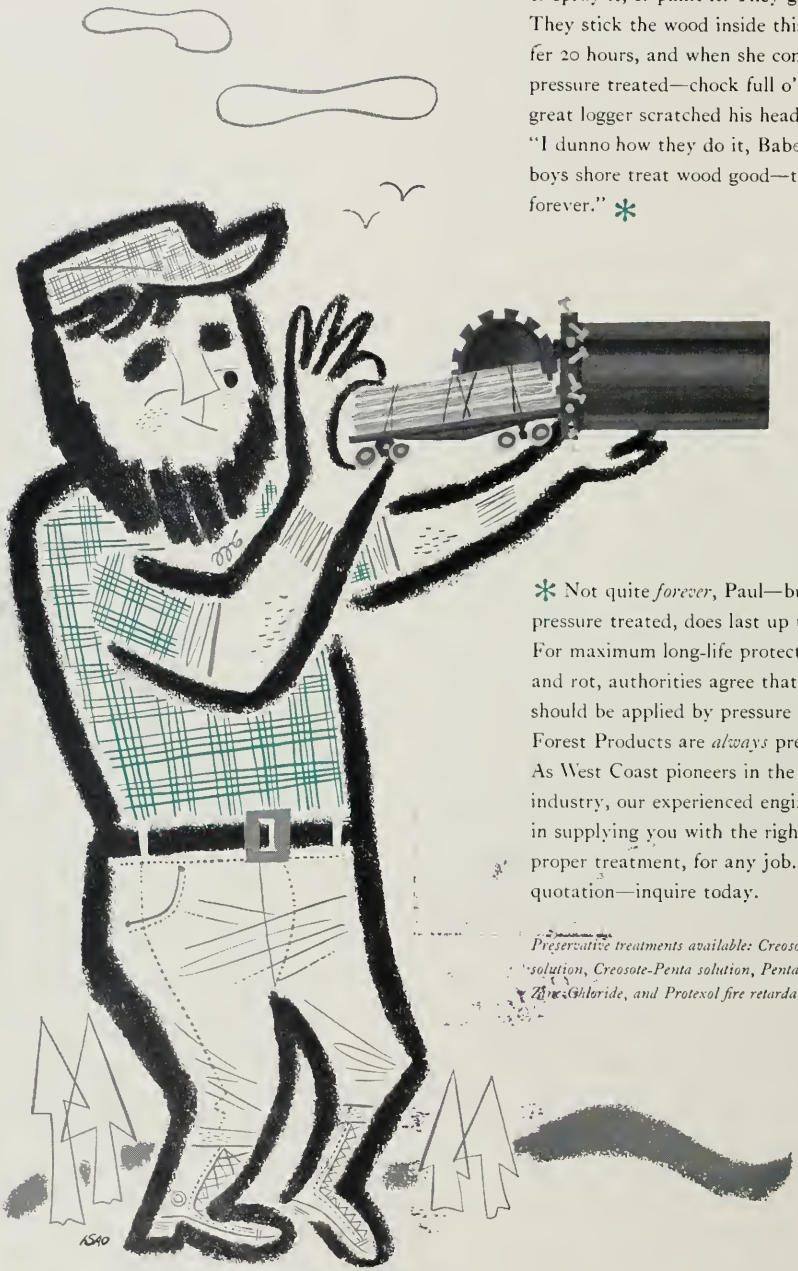

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**STEEL FOR BEAUTY!** Kellogg High School, Kellogg, Idaho, is a dramatic example of the functional beauty that can be achieved through steel. Fabricated by Gate City Steel, Boise, Idaho, using United States Steel angles, plates, and structurals, it contains 68,000 square feet of space. The contemporary design provides maximum lighting for students and is a permanent structure, economical to maintain. Culler, Gale, Martell, Norrie, of Spokane, Wash., and Perkins and Will, of Chicago, Ill., were associated architects.

**STEEL FOR ECONOMY!** The Green River School in Utah was built at a cost of less than $10 per square foot . . . one of the most economical school buildings in the Intermountain West! This modern structure features an all-welded frame . . . one of the first in this area. Architects were Cannon, Smith & Gustavson, Salt Lake City. Dean L. Gustavson—partner in charge.

**STEEL FOR VERSATILITY!** Exposed steel trusses solved a problem in the construction of the Green River School's gymnasium . . . and saved about $30,000 in building costs! Since soil conditions required the building to be founded on pilings, the gym could be recessed half its height into the ground. This unique design allowed for a continuous roof plane. For *your* next project, consider the advantages of steel—United States Steel.

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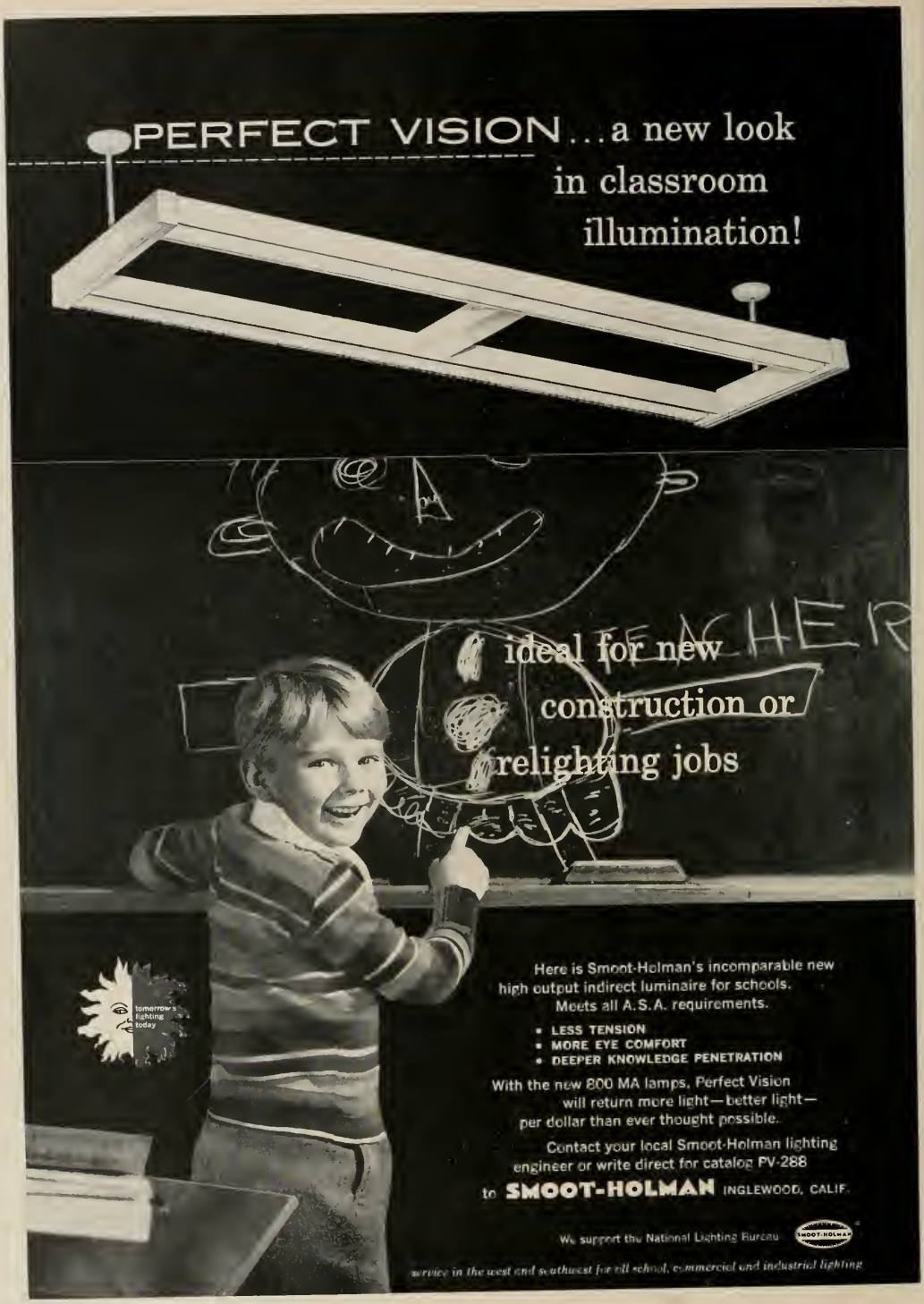
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Vol. 209 No. 1

# ARCHITECT AND ENGINEER

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**COVER PICTURE**

**AMERICA FORE BUILDING**

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HERTZKA & KNOWLES
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Among newest modern structures on the West Coast . . . this building is a glowing tribute to today's architecture.

See page 8 for more details.

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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

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# . EDITORIAL NOTES .

## WESTERN ARCHITECTS RECOGNIZED

Next month in Washington, D.C., The American Institute of Architects will observe ceremonies recognizing a number of the nation's most outstanding architects.

It is significant that the majority of architects singled out for highest award's of the 11,500 member society, are Western architects and those who maintain active offices in Western cities.

Louis Skidmore, senior partner of the architectural firm of Skidmore, Owings & Merrill, with offices in San Francisco and Portland, has been chosen to receive the coveted Gold Medal for 1957, "in recognition of his leadership in the formation and conduct of a firm which has made outstanding contributions to the profession of architecture."

The Fine Arts Medal, highest award in a non-architectural fine arts effort goes to Mark Toby of Seattle, Washington, for distinguished achievement in painting.

Charles Eames of Venice, California, will be awarded The Craftsmanship Medal for distinguished design of furniture; and to David C. Baer, Houston, Texas architect, goes the Edward C. Kemper Award, made annually for significant contributions to the profession.

This is a pretty good record for the West and certainly indicates that western architects and architecture have a predominating influence on the nation's design trends.

* * *

## BRINGING THE OUTDOORS INDOORS

A recent interesting report of Frank B. Miller of Los Angeles, President of the national Sliding Glass Door and Window Institute, is a good answer to the often heard question: "Are there any opportunities today for small business and the small manufacturer."

Away back in 1954 an enthusiastic group of Southern California pioneers in the sliding glass door and window industry conceived the idea that their product was as adaptable for "economic" type construction as it was for the generally accepted special, more costly, class.

Banding themselves together in an industry-wide cooperative effort, these manufacturers went to work studying residential, commercial, institutional and industrial design and utility use, as well as client acceptance, to determine how their comparatively new product in the construction industry could best serve all factors involved.

The result is that after slightly more than two years of Institute effort, President Miller predicts the 20 membership organization will collectively enjoy a business volume in 1957 exceeding $100,000,000.

A pretty good indication that there are many opportunities today for those willing to seek knowledge and can recognize the ways and means whereby their enterprise may serve, and then are willing to apply themselves to a solution of the problems confronting them.

* * *

## TRINITY RIVER POWER

There seems to be considerable low visability in the area of California's United States Senator Thomas Kuchel's thinking relative to the proposed Trinity River joint development project, and while we certainly hold no brief for the Pacific Gas & Electric Company because of their arbitrary position in the electric power and gas distribution position in California, in the interest of the public and common sense we will have to support the P.G. & E.'s position as more desirable than the Senator's.

In the first place the basic concept of the Central Valley Project is water conservation. In the passage of the Central Valley Project Act of 1937, Congress specifically declared that Project reservoirs were to be "used, first, for river regulation, improvement of navigation, and flood control; second, for irrigation and domestic uses; and third, for power."

Skipping differences of opinion relating to the first two factors of the Act, Senator Kuchel loses himself in the smog of Washington career bureaucrats who stupidly contend that the federal government can build the Trinity project and supply "public power" at less cost than can private enterprise. In quoting the Reclamation Commissioner's estimate that "Preference customers" would pay $47-million less for power if government built, we are not told that these "preference customers" are a few electric customers in the Central Valley representing about 5% of the population of California, and that the record books are full of instances where government in business operates at a substantial loss . . . a loss which is made up by taxpayers at large.

As a taxpayer you should realize the federal power project would pay NO taxes. On the other hand the P.G. & E. estimate they would pay $83-million Federal taxes.

If those in authority will just back-away from Washington influences and look at the project in terms of the tax paying public of California, it will not be necessary to use a slide rule or a calculator to see that the public will get better power at lower rates under private development than they will under Federal development where all taxpayers foot-the-bill for a few "preference customers."

# TWO HERTZKA & KNOWLES PROJECTS

Office building (completed) for
America Fore Insurance Group,
Pine and Battery Streets,
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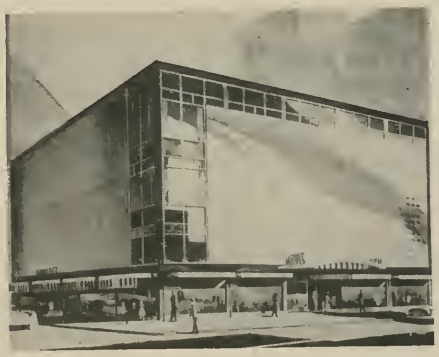

Moore's store (under construction)
Post and Kearny Streets,
San Francisco

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*The steel framing of this building has an 8-inch WF 48-pound member running through the center, supported on a 5 x 5 16-pound column. The front and rear members are 12-inch 10.6-lb. steel channels. These are supported on the 5 x 5 center column and masonry end walls. Intermediate roofing members are 6-inch channels and 8-inch wide flanges.*

# Steel frame houses fit every building budg

Forget for a moment the structural and architectual advantages of steel frame houses. What about costs? Steel frame homes need not be more expensive than conventional construction. Judicious use of steel framing can prove a real money-saver. Steel framing means *less framing...faster erection...less labor.* Steel framing can also eliminate the cost of bearing walls leaving interiors wide open and flexible.

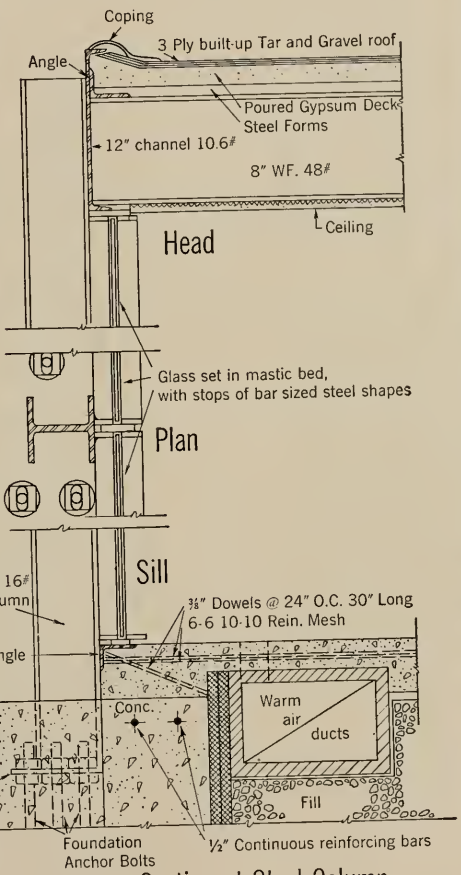
The Salt Lake City homes shown here are three examples of how steel framing can be effectively used to reduce costs. Architects Cannon, Smith and Gustavson, had the framework shop welded (in four sections). The welding and grinding took one day in the case of the house in the large picture. Erection time, using three men, was just five hours. Total cost (including built-in furniture and kitchen equipment): $10.50 a square foot.

*A distinguishing feature of these Cannon, Smith & Gustavson homes is steel columns riding outside the structure so that loads are carried in shear. The exposed frame presents a clean consistent rhythm that becomes the basic element of the architecture. By introducing some moment into the columns, the architects were able to use lighter steel members.*

# *News of 3 more steel homes from United States Steel*

*The United States Steel shapes used in these Salt Lake City homes are sold by steel jobbers in your locality.*

*Architect: Dean L. Gustavson, AIA*
*John W. Sugden, Associate*
*Cannon, Smith & Gustavson, Salt Lake City*




Transverse Section at Steel Column

*Steel framing leaves interiors open to such possibilities as this plumbing core, a compact gathering of kitchen, laundry, bath and mechanicals. This also serves as an island separating living and bedroom areas. The ceiling is a simple plaster panel suspended from the steel frame.*

*Steel is complementary to any building material. Here the steel frame is set off at either end with English Bond brick bearing walls. The architects favor white painted frames so that shadows will give the structures a "sculptured look."*

**ARCHITECTS & ENGINEERS:** Write for your free copy of "*New Horizons for Home Building . . . With Steel.*" This new booklet contains case histories of architect-designed steel homes and other useful information on building codes, specification data and advice on the maintenance and painting of steel. Write: Architects & Engineers Service, Room 1260, United States Steel Corporation, Columbia-Geneva Steel Division, 120 Montgomery Street, San Francisco 6.

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AMERICA FORE BUILDING—San Francisco

SOME INTERESTING WORK OF

# HERTZKA & KNOWLES

ARCHITECTS

**ENTRANCE**
**Executive Offices**

**GENERAL CONTRACTORS:**
**Cahill Brothers, Inc.**

**STRUCTURAL ENGINEERS:**
**Graham & Hayes**

**MECHANICAL ENGINEERS:**
**Buonaccorsi & Murray**

**LANDSCAPE ARCHITECTS:**
**Lawrence Halprin & Associates**

**KITCHEN CONSULTANT:**
**Ben Freed**

The Architectural partnership of Wayne S. Hertzka and William H. Knowles has been a continuous one since 1933 with the exception of three and one-half years during World War II. They are the second oldest Architectural partnership in San Francisco, Masten & Hurd being the oldest. Specializing in the design of Commercial, Industrial and Institutional buildings, April 1957 finds the firm having just completed or about to start the construction or design of several interesting structures which are illustrated and described on this and the following pages.

The America Fore Insurance Building at Pine and Battery Streets in San Francisco is the most recently completed project. This building is to be used as the Headquarters of the Pacific Department of the America Fore Insurance Group.

This seven story building is of reinforced concrete with wood piles. The ground floor houses the City Office of the Insurance Group and on the east side of the elevator lobby the International Business Machine Company is planning a sales and service office. The basement has printing and storage facilities and a 25 car garage.

The large corner entrance, a requirement of the

**VIEW OF ELEVATOR LOBBY**

Owners, has an unusual terrazzo floor of large white marble aggregate and features a huge circular cast terrazzo floor planter 11′ in diameter. The walls of the elevator lobby are of St. Michel marble with a plaster cove-lighted ceiling.

The 2nd to the 5th floors accommodate the General Offices of the Companies with interior movable partitions of metal and glass and under-floor electric and telephone ducts. Complete flexibility of arrangement of desks and offices is thus achieved. The building is completely air-conditioned and the outside perimeter of the office space next to the windows has a newly developed air conditioning system which introduces cool or warm air through specially perforated acoustical tiles in the ceiling. The set-back from adjoining property lines makes the structure virtually free-standing. In addition to the general offices, half of the 2nd floor has been devoted to a completely equipped medical suite.

On the 6th floor are the Executive and General Offices. The entire Executive Suite is panelled in walnut with grass cloth panels and carpeted floor. On the 7th floor are the Cafeteria, Lounge and Recreation Room, Executive Dining Room and Meeting Room. The Cafeteria seats 160 and is finished like a pleasant restaurant with a beautiful view of the City and Bay. The Kitchen has all stainless steel equipment and tiled floors and walls. The club-like atmosphere of the Lounge is accomplished with comfortable easy chairs, television and game tables.

The exterior design is an expression of the interior plan of the building. The principal solid mass on the Pine Street elevation is the granite covered service core containing the stairway, elevators and lavatory rooms. From this core the floors radiate and are expressed with concrete overhangs. These overhangs,

**EXECUTIVE OFFICES**

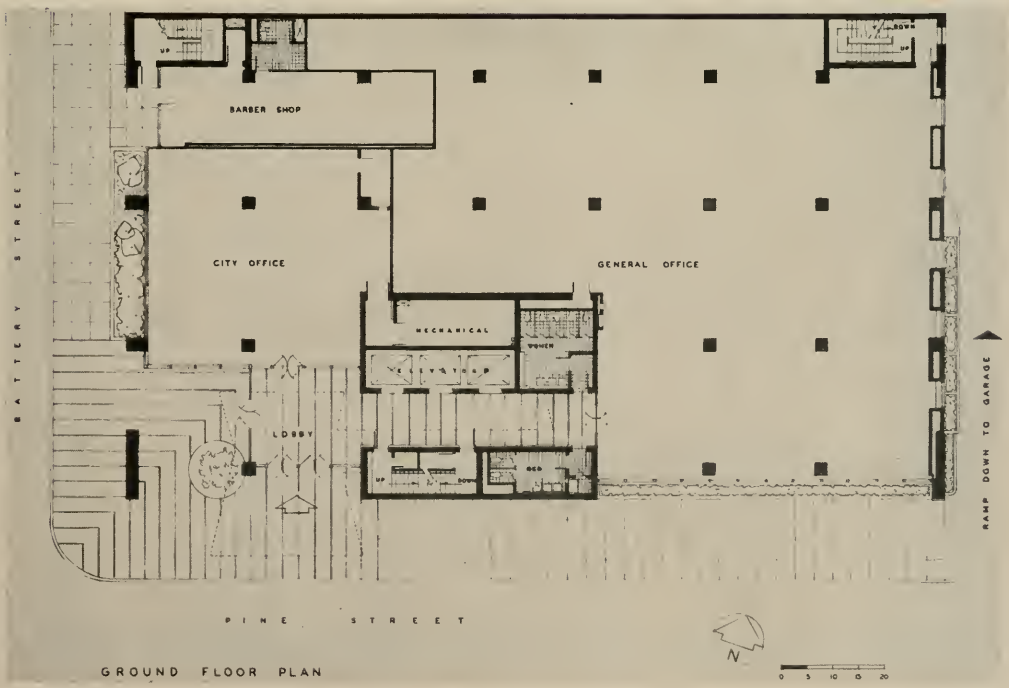
4' wide, were designed not only to afford some sun protection but to allow for easy window cleaning. Aluminum window walls from floor to ceiling have tempered colored glass spandrels at the furred ceiling line. In order to obtain the same overhangs on Battery Street, they were enclosed with protecting concrete wing walls.

Just up the block on Pine Street is the office building of the Pacific Employers Insurance Company, the construction of which was started in January of this year. This five story reinforced concrete building faces south on an interior lot and features a grid of horizontal aluminum louvers superimposed upon a facade of full height glass windows and projecting concrete balconies. The louvers function both for control of sun, heat and glare and preserves the open character, difficult to achieve on an interior site with a narrow frontage. The louvers are credited with a substantial "assist" to the air conditioning system with which this building will be equipped. The exterior and lobby wall surfaces will be finished in polished granite.

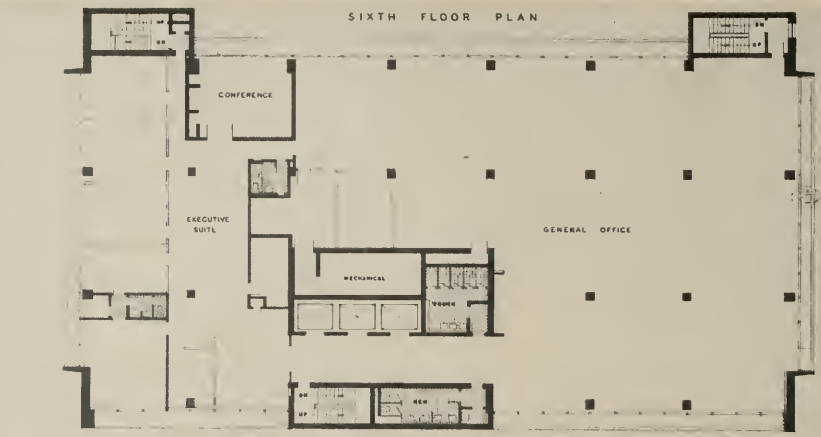
The Crown Zellerbach Corporation Headquarters Building now under construction in downtown San Francisco and designed in association with Skidmore,

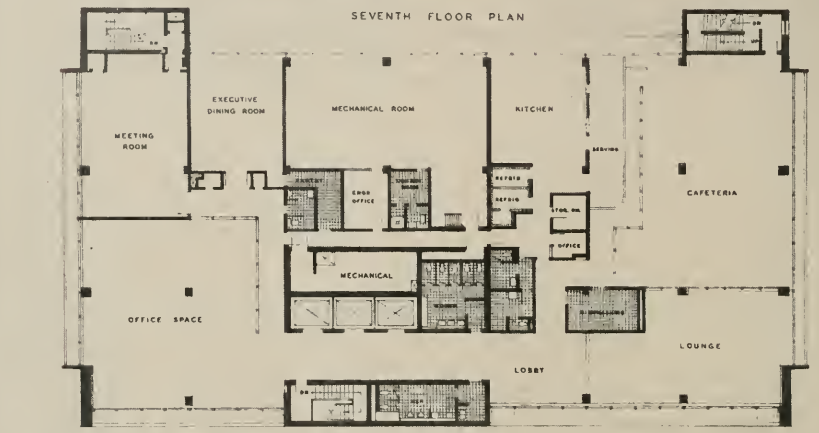
VIEW OF VICE-PRESIDENT'S OFFICE

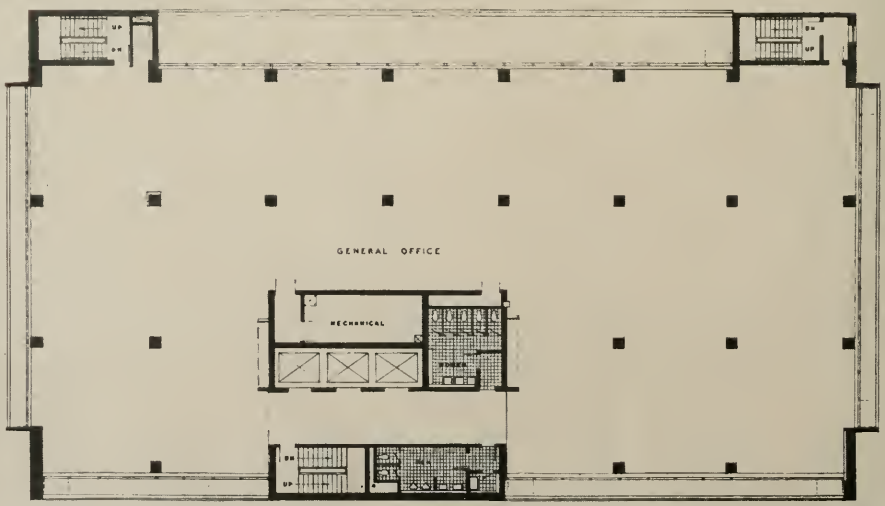
GROUND FLOOR




GROUND FLOOR PLAN




TYPICAL OFFICE FLOOR PLAN

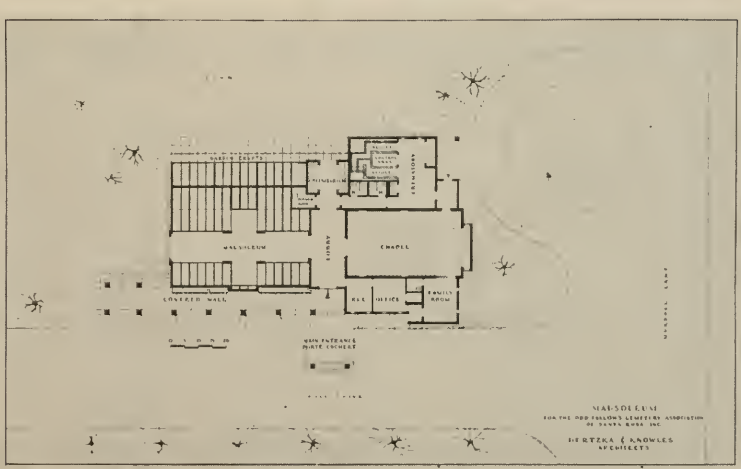
## SANTA ROSA, CALIFORNIA
## MAUSOLEUM

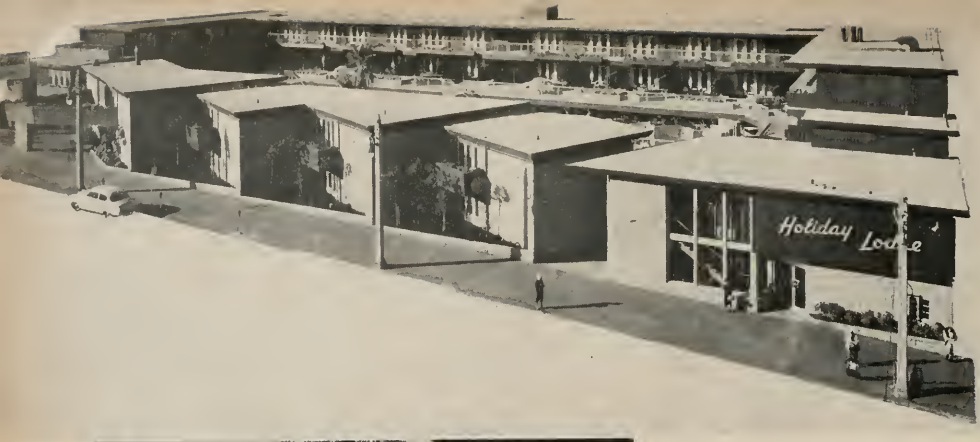
**Odd Fellows Cemetery Association**
**Of Santa Rosa, Incorporated**

**GENERAL CONTRACTOR:**
**Ralph Larsen & Sons**

**STRUCTURAL ENGINEERS:**
**Graham & Hayes**

**MECHANICAL ENGINEERS:**
**Keller & Gannon**





## HOLIDAY LODGE

San Francisco

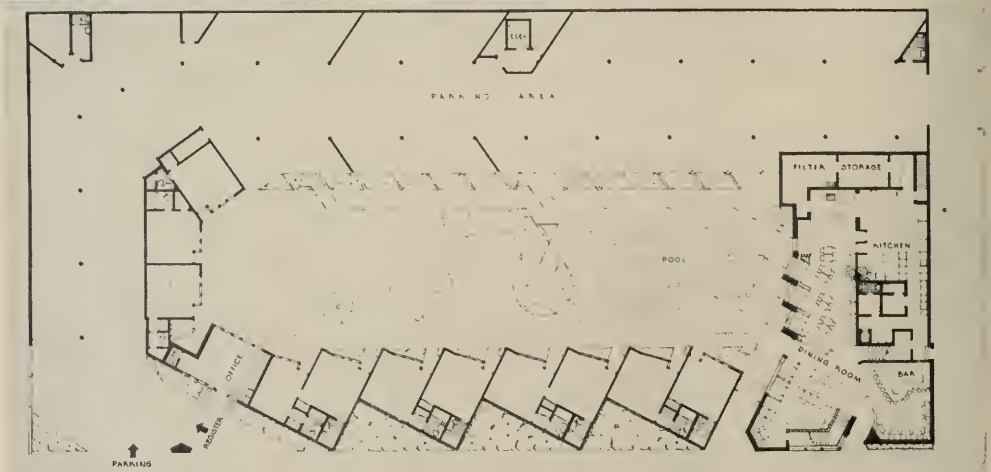
**GENERAL CONTRACTOR:**
Jacks & Irvine

**STRUCTURAL ENGINEER:**
Graham & Hayes

**MECHANICAL ENGINEERS:**
Keller & Gannon

**LANDSCAPE ARCHITECTS:**
Lawrence Halprin & Associates

**DECORATORS:**
Knarr Interior Planning




FIRST LEVEL PLAN

HOLIDAY LODGE

**2320 SUTTER MEDICAL BUILDING . . . San Francisca**

**GENERAL CONTRACTOR:**
**Jacks & Irvine**

**STRUCTURAL ENGINEER:**
**Graham & Hayes**

**LANDSCAPE ARCHITECT:**
**Lawrence Halprin & Associates**

Owings & Merrill, represents one of the most advanced building designs on the Pacific Coast. Occupying an entire triangular block bounded by Market, Sansome and Bush Streets, the 20 story tower will rise majestically from a park-like plaza landscaped with trees, flowers and fountains. Not only is an entire city block of substantial buildings being demolished to make way for the new building, but the street intersection at Market and Battery Streets will be altered to conform to the changed traffic pattern set up by its added population and underground parking and delivery requirements. The visual impact on the city will be equally profound as the colorful and gleaming glass and aluminum structure is added to the skyline. A 5'-6" modular plan has been developed for the office floors with air conditioning, electrical and telephone outlets at each unit. This will permit complete flexibility of office layouts which was a requirement of the owners.

On the southwest corner of Kearny and Post Streets, in the heart of the men's shopping district, the new Moore's Clothing Store is under construction. A six

**HIBERNIA BANK — 22nd Avenue and Noriega Street, San Francisco**

**GENERAL CONTRACTOR:**
**Jacks & Irvine**

**STRUCTURAL ENGINEERS:**
**Graham & Hayes**

story office building on this site was demolished to prepare for this three story and mezzanine single purpose store building because ground floor area is too valuable for merchandising to sacrifice to the lobby, stairs and elevators required to serve rental floors.

Modern air conditioning made it possible to combine the offices, receiving rooms, stock rooms and other service areas in the basement thus relieving the upper floors for the sole purpose of merchandising men's and women's clothing. First floor and Mezzanine will be given over to men's furnishings, sportswear and shoes.

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***HIBERNIA BRANCH BANK***
***2320 SUTTER MEDICAL BUILDING***

(See pictures of all three buildings in this issue)

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174 Shotwell Street
San Francisco

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***MECHANICAL CONTRACTORS***

ON

**Pacific Employers Insurance Building**
SAN FRANCISCO

**HERTZKA & KNOWLES, *Architects***

**CAFETERIA BUILDING**
**Atomic Energy Commission facilities at the University of California at Berkeley, California**

The Second Floor will be devoted in its entirety to men's clothing and the Third Floor to women's clothing. The latest type automatic elevator will service all floors, and an additional open type circular stairway has been added for easy access to the Mezzanine. An electric dumbwaiter has been planned to service all wrapping counters, the tailor shop and the shipping and receiving room in the basement. A variety of materials have been used in the interior, finishes and selling fixtures, with the predominant wood being walnut and the metallic structures of the sales fixtures and railings in bronze or enameled steel.

The main wall surfaces of the exterior will be mottled gray ceramic veneer mounted on a lightweight steel stud, metal lath and plaster wall. The


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MILL & CABINET WORK
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in San Francisco
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trim is polished blue-black granite and the window members will be aluminum.

The firm has completed or has under construction several structures for the Pacific Telephone & Telegraph Company which include offices at Tahoe City, Sunnyvale, Sausalito, North Stockton, Livermore and Yosemite. All of these buildings are distinctive in character and attempt to reflect in some way the location in which they were built.

Another recently completed building is the 2320 Sutter Medical Building which houses the offices of ten Medical Suites of varying specialties. The building was designed free-standing to allow for auto entrance and exit to parking space in the rear. The rear entrance is at ground level with easy access for patients not able to use the stairs. There is an elevator to the second floor.

The exterior is designed with light colored brick, with continuous aluminum windows separated by charcoal gray spandrels. The ceramic decoration at

(See page 22)

Headquarters Office Building

**CROWN ZELLERBACH CORPORATION**

San Francisco

Hertzka & Knowles

and

Skidmore, Owings & Merrill

Associated Architects

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***Phone: OL 3-9911***

**PLUMBING**

On the New Home of

**America Fore Insurance Group**

San Francisco

Hertzka & Knowles, Architects

*by*

**Rodoni, Becker Co., Inc.**

455 - 10th STREET, SAN FRANCISCO

Phone: MA 1-3662

**LATHING & PLASTERING**

*on the*

**AMERICA FORE INSURANCE GROUP BUILDING**

Hertzka & Knowles, Architects

*by*

**FRED MEISWINKEL**

2155 TURK STREET, SAN FRANCISCO

Phone: JOrdan 7-7587

## CROWN ZELLERBACH BUILDING

Plan of Site Development

**GENERAL CONTRACTOR:**
Haas & Haynie

**STRUCTURAL ENGINEER:**
H. J. Brunnier

**ODD FELLOWS MAUSOLEUM, Santa Rosa, California**

*Hertzka & Knowles, Architects*

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**VAN NESS AVENUE**
**HOTEL AND OFFICE BUILDING**

San Francisco

Thomas M. Price
and
Hertzka & Knowles
Associated Architects

STRUCTURAL ENGINEERS:
R. L. Reid, Inc.
Graham & Hayes
Associated Engineers

MECHANICAL ENGINEER:
Joe Poole

LANDSCAPE ARCHITECT:
Thomas Church


**FORMICA WALL PANELS**

*for*

New Home of Pacific Department
*America Fore Insurance Group*
Battery & Pine Streets, San Francisco
Architects: Hertzka & Knowles, A.I.A.

~

*Pioneer Formica Fabrication Installations*

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FUTURE HOME OF
PACIFIC EMPLOYERS INSURANCE CO.
San Francisco, California

**HERTZKA AND KNOWLES**

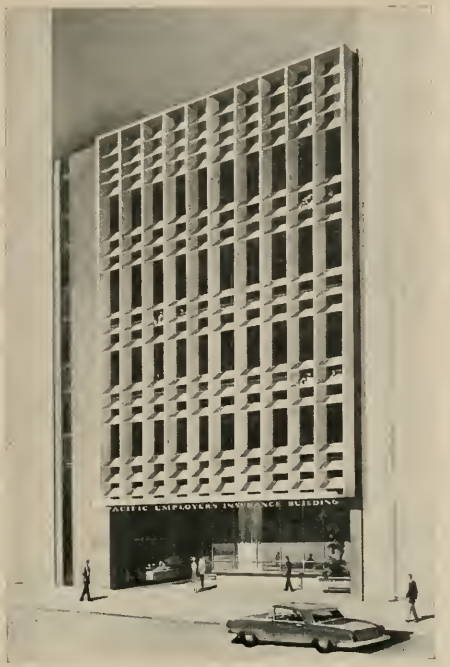
***ARCHITECTS***

•

**HAAS AND HAYNIE**

***General Contractors***

**SAN FRANCISCO . . . LOS ANGELES**




**PACIFIC EMPLOYERS INSURANCE COMPANY**
San Francisco

GENERAL CONTRACTOR:
Haas & Haynie

STRUCTURAL ENGINEERS:
Graham & Hayes

**UNDERPINNING AND SHORING**

*by*

**D. J. & T. SULLIVAN**

*at*

**MOORE'S STORE**
**Post & Kearny — S. F.**

## Under Construction

# MOORE'S STORE

**POST & KEARNY STREETS**
**SAN FRANCISCO**

**HERTZKA & KNOWLES • *Architects***

**BARRETT CONSTRUCTION CO.**
***Builders***

**1800 EVANS AVENUE • SAN FRANCISCO 24, CALIF.**
**MIssion 7-9700**

the entrance depicts the History of Healing and was designed by Mary Erkenbrack.

Shortly after July 1st the block on Van Ness Avenue between Post and Geary Streets will take on a new look with the start of the 400 room Hotel and 9 story Office Building being designed in association with Thomas M. Price of Galveston, Texas. This structure will combine all of the latest developments in Hotel and Office Building construction and appointments including a 600 car garage in which the hotel patron will be able to register and proceed to his room directly without going to the Main Lobby of the hotel.

There will be a combination banquet and meeting room in the hotel for 1000 people with additional small meeting rooms. Also planned are a bank, shops, restaurant and cocktail bars. The office building will be completely air-conditioned and will have 15,000 square feet per floor. The garden court will have a swimming pool and recreational facilities.

Further up Van Ness Avenue at Washington Street is the Holiday Lodge, an informal city hotel, with integral parking, restaurant and cocktail lounge, which was completed about two years ago and represents an unusual solution to a difficult planning problem. Built on three levels, with a block long facade on Van Ness Avenue, the design of this hostelry has been the subject of much favorable comment among the Hotel and Motel fraternity.

The exciting stone and redwood exterior gives only

(See page 28)

**MOORE'S**

**New San Francisco Kearny Street**

**GENERAL CONTRACTOR:**
**Barrett Construction Co.**

**STRUCTURAL ENGINEERS:**
**Graham & Hoyes**

**KOLORBLEN . . .**

**. . . Concrete Color Hardener**

*Waterproofing of Basement*

America Fore Insurance Group Building

*by*

*Conrad Sovig Co.*

875 BRYANT STREET

SAN FRANCISCO HEmlock 1-1345

**ENTRANCE**

**BLUM'S**

**Geary Street across from Union Square**

**GENERAL CONTRACTOR:**
**Dinwiddie Construction Co.**

**DECORATOR:**
**Barbara Dorn**

**ARCHITECT (for Macy's)**
**John Bolles**

**INTERIOR view of Blum's Geary Street store**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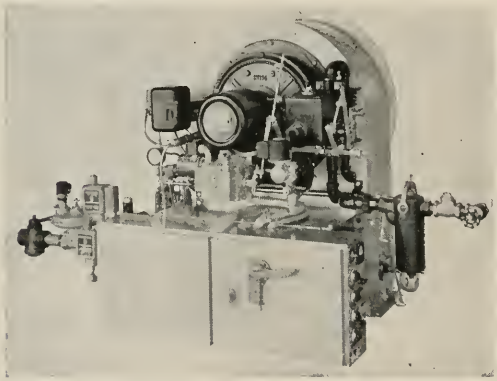

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## PASADENA CHAPTER

Walter Pruter of the Kaiser Aluminum Company showed his company's new film on the new Geodesic Dome, and answered questions relative to many construction phases, as the feature of the April meeting held in the Green Hotel, Pasadena.

New Members include: Jack E. Causey and Richard A. Ohmert, Corporate Members.

## SAN FRANCISCO ARCHITECTURAL CLUB

"Wink" Epperson of the Timber Engineering Company was the principal speaker at the April meeting, taking as his subject "Engineered Timber Construction." In addition to discussing the matter he showed a sound and color film illustrating many phases of timber uses in construction.

A tour of the Pabco Company manufacturing plant in Emeryville, was enjoyed by members on April 26.

## PASADENA WAL

The Interim Meeting of the Central Committee of the Women's Architectural League of California, met at the Huntington-Sheraton Hotel, April 23-24, with Mrs. Robert E. Langdon, Jr., and Mrs. Culver Heaton serving as Chairman and Recorder respectively.

## WASHINGTON STATE CHAPTER

Earl Powell's picture slides of his recent trip to Europe highlighted the April meeting, held in the

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

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Spokane Chapter:

Wm. C. James, President; Carl H. Johnson, Vice-President; Keith T. Boyington, Secretary; Ralph J. Bishop, Treasurer; Lawrence G. Evanoff, Carroll Martell, Kenneth W. Brooks, Directors. Office of the Secy., 615 Realty Bldg., Spokane, Washington.

Hawaii Chapter:

Robert M. Law, President; Harry W. Seckel, Vice-President; Richard Dennis, Secretary. Directors: Edwin Bauer, George J. Wimberly. Office of Secy., P.O. Box 3288, Honolulu, Hawaii.

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## ALLIED ARCHITECTURAL ORGANIZATIONS

San Francisco Architectural Club:

Frank L. Barsotti, President; Arie Dykhuizen, Vice-President; Albert Beber-Vanzo, Secty; Stanley Howatt, Treasurer. Club offices 507 Howard St., San Francisco.

Producers' Council—Southern California Chapter:

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Producers' Council — Northern California Chapter (See Special Page)

Construction Specifications Institute—Los Angeles:

R. R. Coghlan, Jr., President; George Lamb, Vice-President; Peter Vogel, Secretary; Harry L. Miller, Treasurer.

Construction Specifications Institute—San Francisco:

Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Conley, Secretary. Office of Secy., 1245 Selby St., San Francisco 24.

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Chamber of Commerce on the 4th. Included were scenes of Egypt, Luxor, Karnak and the Valley of the Kings. A special guest of the meeting was Donald J. Stewart, Northwest Regional Director of the AIA.

New Members: Robert J. Burman, Corporate Member. Donald C. Cochran, Linn A. Forrest, II, Robert M. Momnsen, William C. Ridenour, Donald B. Van Wieringen, Gerald A. Williams and A. Robert Williams, Associate Members.

## NORTHERN CALIFORNIA CHAPTER

Wm. S. Allen was elected president of the Chapter at the annual meeting recently. Elected to serve with him during the ensuing year were: William Corlett, vice-president; Worley Wong, secretary, and Donald Powers Smith, treasurer. Bernard J. Sabaroff, Corwin Booth and A. Appleton were named to the Board of Directors.

## SAN DIEGO CHAPTER

Members of the San Diego Chapter have decided to take an active part in a state-wide campaign to oppose bills now before the California state legislature which, if enacted into law, would limit fees for public work to as little as 3½ per cent.

One proposed measure sets for the following schedule: For the first $100,000 of cost a 6% fee; for the next $200,000 a 5% fee; for the next $200,000 a 4% fee, and for all above $1,000,000 the fee would be 3½ per cent.


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Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Walter L. Dickey, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

C. M Herd, President (Sacramento); L. F. Greene, Vice-President (Sacramento); J. F. Meehan, Secy.-Treas. Directors: C. M. Herd, L. F. Greene, L. G. Amundsen, W. A. Buehler, R. W. Hutchinson. Office of Secy., 68 Aiken Way, Sacramento.

American Society of Civil Engineers
Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## AMERICAN SOCIETY OF CIVIL ENGINEERS – San Francisco Section

The Honorable George D. Clyde, Governor of the State of Utah, was the principal speaker at the April meeting held in the Merchandise Mart, San Francisco, speaking on the subject "An Engineer Looks at the Future." Governor Clyde is an engineer by profession having held the position of Dean of the School of Engineering at Utah State College, Director of the Utah Power and Water Board, and Commissioner of Interstate Streams for the State of Utah. He received his Masters Degree at the University of California.

## NARVER CIVIL ENGINEERING SCHOLARSHIP AT STANFORD

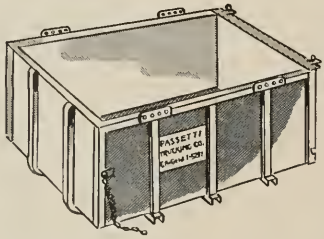
A perpetual endowment scholarship in the amount of $20,000 has been established at Stanford University by D. Lee Narver, board chairman of Holmes & Narver, Inc., Los Angeles engineers and constructors, and his wife, Vida.

To be known as the "Lee and Vida Narver Civil Engineering Scholarship," it will provide full tuition for one student or partial tuition for two, at the discretion of the University.

In announcing the scholarship, Narver declared, "We have provided the scholarship to help alleviate the growing shortage of technically trained people."

To be eligible for the scholarship, applicants must be male residents of Southern California in definite need of aid. In addition, they must be students of civil engineering and have high scholarship and leadership potential.

An unusual aspect of the scholarship is the provision that it may be used for fifth and sixth years of study if it has carried the student through his undergraduate work.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## AMERICAN SOCIETY OF CIVIL ENGINEERS - LA SECTION

"Unique Engineering Aspects of the Swift Creek Hydroelectric Development" will be the subject of John Kiely, Vice-president of the Bechtel Corp'n. at the May 8 meeting to be held in the Roger Young Auditorium, Los Angeles.

The Swift Creek Hydroelectric Development is being constructed on the Lewis River in the State of Washington for joint use of the Pacific Power and Light Company and Public Utility District No. 1 of Cowlitz County, Washington. Such a combination of public and private development is unusual and the engineering aspects of the dam site are even more unusual. The earth dam to be constructed at this site will be one of the highest in the world. Kiely will describe principal features of the work and how its problems are being met using color illustrated slides. He is in charge of all engineering and construction work which the Power Division of Bechtel Corp'n. handles.

## AMERICAN SOCIETY OF MILITARY ENGINEERS - SAN FRANCISCO POST

"New Developments in Nuclear Power" was the subject of a talk by Colonel H. F. Sykes, Jr., Director of the US Army's Engineer Research and Development Laboratories, Fort Belvoir, Va. at the April meeting held in the Presidio Officers Club, Presidio of

Barbara Counties Branch, Robert L. Ryan, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy., c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Cdr. Wm. J. Valentine, USN, President; Col. Edwin M. Eads, USAF, 1st Vice-President; C. R. Graff, 2nd Vice-President; Joseph D. Boitano, Jr., Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA, Donald McCall, Capt. A. P. Gardiner, USN, C. Grant Austin and Rex A. Daddisman. Office of Secy. c/o District Public Works Office, 12th Naval District, San Bruno, California.

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San Francisco. Col. Sykes spoke of the Army's nuclear power package reactor, engineer support of guided missiles and new developments geared to give the fighting forces the high degree of mobility demanded by modern warfare.

At the recent Annual Election the following officers were chosen to serve for the ensuing year: Cdr. Wm. J. Valentine, USN, President; Col. Edwin M. Eads, USAF, 1st Vice-president; C. R. Graff, 2nd Vice-president; Joseph D. Boitano, Jr., Secretary; Donald C. Bentley, Treasurer. Directors include Col. John S. Harnett, USA; Donald McCall, Capt. A. P. Gardiner, USN, C. Grant Austin, and Rex A. Daddisman.

New Members include: Capt. J. A. McHenry, Major David R. Cole, Thornton Jo Corwin, Jr., Major Herbert R. Haar, Austin W. Earl, Fred R. Muhs, Lloyd J. Amaral, John E. Melgord, Grant Phillips, Daniel A. McNiven, Jr., E. Ralph Shepard, Warren N. Shingle, Cdr. John J. Geary, Eldon J. Kempton, Thomas L. Adams, and Bernard Schiller.

## STRUCTURAL ENGINEERS ASSOCIATION SOUTHERN CALIFORNIA

L. T. Evans gave a brief discussion on "Actual Testing of Driven and Drilled Piles on the Same Project." at the April meeting, held in the Roger Young Auditorium, Los Angeles.

Highlighting the same program was an illustrated discussion of "Corrosion Fundamentals and Atmospheric Corrosion Control," by R. H. Kerr of the Southern California Gas Company, and L. L. Whitenbeck of Plicoflex, Inc., and formerly Corrosion Engineer for the Long Beach Harbor Dept.

Recent new members include: John Day, Norman A. Gedhardt, Arthur C. Neville, and Lester Paley, Associate Members. Norman J. Epstein, Terrell D. James, and Byron E. Jones, Junior Members; James J. Kesler, Member; John G. Van Campen, Affiliate; and Gerald S. Hagy, L. Lawrence Lewis, William D. Lewis, Robert E. Perrin, Mark A. Pescara, Eugene E. Schader, and Arthur J. Thompson, Student Members.

## STRUCTURAL ENGINEERS ASSOCIATION NORTHERN CALIFORNIA

"Construction on Tidelands" was the subject of a talk by a panel of speakers at the April meeting held in the Engineers Club, San Francisco.

Those taking part as members of the panel included:

(See page 32)

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# HERTZKA & KNOWLES

(From page 22)

a hint of what might be expected on the inside. Guests are pleasantly surprised upon entering to view the beautifully landscaped interior court abundant with lush tropical planting and paved terraces for sitting or swimming, a sunny pool and an atmosphere of an oasis in the heart of a busy city. Most unusual of all is that no automobiles are evident, as the garage is underground and hidden from view.

The swimming pool, located in the court, is completely shaded from the winds and open to all sunshine. Not only is the water heated but the concrete deck around it is radiant heated.

The facilities include 64 rooms plus a restaurant, bar, banquet room, and hotel lobby. The rooms are all finished in redwood and furnished in a contemporary style.

Early in 1956 Hertzka & Knowles completed a mausoleum for the Odd Fellows Cemetery Association of Santa Rosa. The unusual feature of the Santa Rosa mausoleum is that it is contemporary design in brick and concrete, and yet has the quality of repose and reverence so necessary in this type of structure.

This resume of work by Hertzka & Knowles recently constructed or in the planning stage brings us up to the present time. The immediate future holds many projects that are being designed significantly with a use of materials and ideas that meet the challenge of contemporary architecture. Among the projects now in design are a school, two mausoleums, several financial institutions, a multi-storied office building and additions to two fraternity houses, as well as several store buildings and a Housing project.

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**Hibernia Bank, Sunset Branch**

**Holiday Lodge, Van Ness Ave.**

### STANLEY N. MITCHELL TO ENGINEERING FIRM

Stanley N. Mitchell, A.B. Geology, has been named director of geological and engineering geological activities for the firm of Maurseth and Howe, Consulting Soil and Foundation Engineers, 2601 South Hill Street, Los Angeles, California.

### CITY OF BENICIA SEEKS ENGINEER

An experienced civil engineer is being sought by the City of Benicia, California.

The position of City Engineer, pays a starting salary of $650 to $750 per month, and involves supervision of 16 employees in the Water Department: Street, Park and Sewage Departments, and building inspection. The area includes approximately 23 miles of streets, serving a population of about 7,000.

Requirements for the position, require three years of experience in the design, construction or maintenance of a variety of public works, and a college degree in engineering.

### JUDSON STUDIO HOLDS OPEN HOUSE EXHIBIT

Artists and craftsmen of the Judson Studios, Los Angeles, held an open house during the week of April 15-26, in conjunction with the firm's Sixtieth Anniversary Exhibit depicting the Evolution of Stained Glass, in color, texture and design.

Outstanding examples of each artist's talent was shown in the form of canvas, sculpture, mosaic, pencil and charcoal sketches, designs, photographs and other art forms from their private collections.

### WEST COAST LUMBERMEN ELECT NEW OFFICERS

Robert M. Ingram, Aberdeen cedar manufacturer, was elected president of the West Coast Lumbermen's Association at their 46th annual meeting in Portland, recently, succeeding N. B. Giustina.

Other officers named to serve during the ensuing year include: C. Henry Bacon, Shelton, vice-president; George Flanagan, Medford, vice-president; Judd Greenman, Portland, vice-president; and Jack Fairhurst, San Rafael, California, vice-president. Eliot Jenkins, Eugene, was elected treasurer; H. V. Simpson, executive vice-president and Harris Smith, secretary, both of Portland.

Herman N. Mangles, San Francisco, president of the Federal Reserve Bank of San Francisco; Walter Leuthold, Deer Park, Washington, president of the National Lumber Manufacturers Association; Don Ostensoe, president of the Oregon Advertising Club; F. L. Mattson, WCLA insurance director, and Judd Greenman were featured speakers at the convention.

### ARCHITECT NAMED TO EDUCATIONAL BOARD

Nathaniel A. Owings of Skidmore, Owings & Merrill, internationally known architectural firm, has accepted the Chairmanship of the Architects and Engineers Division of the National Fund for Medical Education, Colby M. Chester, chairman of the Fund's Committee of American Industry announced.

The Committee of American Industry, a division of the National Fund for Medical Education, is conducting a nation-wide appeal to raise $10,000,000 each year for the country's 82 accredited medical schools. In accepting the appointment Owings stated that his committee would seek to enlist the support of all architect and engineer companies behind the Fund's drive.

### BOWLING ALLEY FOR RIALTO

The firm of Underhill & Wagner, H. W. Underhill, architect, is preparing drawings for construction of a 2-story, tilt-up concrete and stone veneer bowling alley building in Rialto, for E. T. Raehn.

Facilities will include cocktail bar, restaurant, and banquet rooms. The building, 185x185 sq. ft. will be of concrete, air conditioning, fire and glass doors, glass block insulation, metal lath and plaster, metal skylights, ornamental iron, sheet metal, sprinkler system, steel sash, wood trusses, automatic pin spotters, and composition roofing.

### VETERAN'S MEMORIAL BUILDING REMODEL

Architects Johnson & Commetta, O. C. Johnson, Architect, have completed drawings for construction of an addition to the Veterans' Memorial building in Richmond, for the Board of Supervisors of Contra Costa County.

Work will include interior alterations, and will cost an estimated $60,000.


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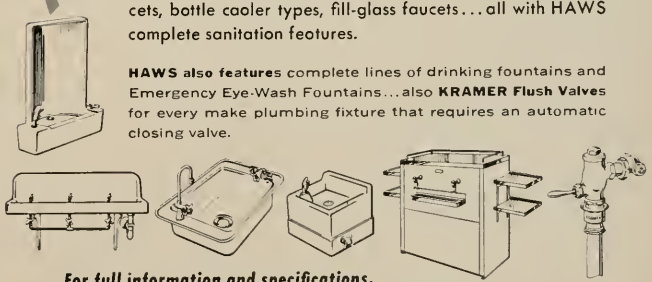

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## TRAINING THE SPECIFICATION WRITER

By SPENCER B. LANE

Courses in specification writing are few and hard to find. The student of architecture or engineering learns how to make drawings. He is assumed to know how to write, and is prone to accept the assumption as truth. The man who feels he needs no instruction in a subject never goes hunting it.

The writer must aim at the particular audience he wants to reach. The article written for a baseball magazine has little chance in a home and garden publication. The specification writer has his audience selected for him. He is writing an illustrated document, drawings being the illustrations.

The object of this document is to record an agreement between an owner and the builder. It tells the contractor what he will be required to furnish and the owner what he will get. To accomplish this the document must be clear and definite, so specifications and drawings must agree. Lack of clarity in either can result in court, and court cases cost money.

A course in specification writing can tell the student how he can go about the job. It can explain the value of the short sentence and definite statement. The writer will be able to pick the right word if he knows construction, and the right word is important. It increases clarity.

Knowing what he should do is only the beginning. He must put his words together in such a way there is no doubt about his meaning. This takes practice, but unless practice is aimed, it is likely to be wasted. The man who fires blindly at ducks he hears flying over head in the fog seldom has duck for dinner.

Reading the classics will not help. Most of them were written to arouse an emotion in the reader and an emotional reaction is the last thing the specification writer is aiming at. His job is to convey a fact to the reader just as it is the object of the journalist to convey a news fact to his reader.

Writing should convey a thought without the reader being conscious that it comes to him through the written word. When you telephone a friend you talk naturally. The specification writer should talk naturally to the reader. When he includes clarity and accuracy he has done a good job.

Flowery language is out. It sounds ridiculous today. Fifty years ago it was in order for a man to write, "I have the honor to request that you remit in full for the enclosed bill. If you don't I'll sue you." Today a man who wrote such a letter might get some sympathy because he was mentally unbalanced. He would certainly not get the money.

The construction industry will make a long step in advance when courses in specification writing are made available. The fundamental theory can be taught. It has been neglected long enough.

## STOCK SCHOOL PLAN BILL

The Washington state legislature has a measure before it for consideration, which if enacted, would establish a state facility to administer a stock school plan under an appointive director. School districts receiving 50% or more construction costs from the state would be required to use stock plans, and the state would take over supervision and stock piling of building materials.


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# News and Comment on Art

## OFFICERS AND TRUSTEES ELECTED SAN FRANCISCO MUSEUM OF ART

Jaquelin H. Hume, executive vice-president of Basic Vegetable Products, Inc., was elected to the Board of Trustees of the San Francisco Museum of Art at the annual meeting of the Board last month. His term will run for three years.

Re-elected for one year terms were E. Morris Cox, President; Robert C. Harris, secretary; and Ransom M. Cook, treasurer. Hector Escobosa was elected to the office of First Vice-President and Albert E. Schlesinger to the office of Second Vice-President.

Re-elected to three year terms as Trustees were Charles W. Fay, Mrs. E. S. Heller, Leon B. Russell, Albert E. Schlesinger, Mrs. Jerd Sullivan and Brayton Wilbur. Arthur Brown, Jr., was elected an Honorary Trustee.

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## ANNUAL PAINTING AND SCULPTURE EXHIBITION WINNERS ANNOUNCED

Prize winners in the 76th Annual Painting and Sculpture Exhibition of the San Francisco Art Association have been announced by Selah Chamberlain, president of the Board of Directors of the Association.

The Art Association purchase prizes in Painting went to Bill Allan's subdued untitled linear composition in mixed media; Sonia Gechtoff's "Rules of the Game"; James Kelly's "Jackknife"; and to Ward Lockwood's "Convolutions."

Purchase prizes in Sculpture went to David Lemon's smooth baywood tripod "Development"; Stefan Novak's "Bird #2"; and to "Bird Composition #4," by James Washington, Jr. Two other awards were given to Suzanne Austin's "Vanity" and to "Maenads III" by Robert Thomas.

Works purchased by the Art Association are housed in the San Francisco Museum of Art, Memorial Building, and the winners of the 76th Annual Exhibition of Painting and Sculpture will remain on exhibition through March.

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## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., announces the following schedule of exhibitions and special events for April:

EXHIBITS: Treasures from the Pierpont Morgan Library, an exhibition of 108 superlative items drawn from the rich resources of this celebrated American institution and circulated among seven leading American museums in commemorating the fiftieth anniversary of its founding. Masters of British Painting, 1800-1950, an exhibition of 103 pictures comprising brilliant survey of the last century and a half of British painting assembled by the Museum of Modern Art of New York, in collaboration wtih the City Art Museum of St. Louis and the California Palace of the Legion of Honor. Paintings by Helen Dunham; Paintings and Drawings by Frank Ashley and Pictorial Americana, 1492-1822, a pictorial story in rare maps and engravings of the discovery of America.

ACHENBACH FOUNDATION for GRAPHIC ARTS: Paintings, Etchings and Drypoints, a selection from the life work of Edward DeWitt Taylor, well known San Francisco artist and painter. Also photographs, memorabillia, and books issued from the fine press of Taylor & Taylor.

SPECIAL EVENTS: Organ program every Saturday and Sunday at 3 p.m.; Art classes for children, each Saturday morning.

The Museum is open daily.

---

## LOS ANGELES ART MUSEUM WILL BE ENLARGED

First major addition to the Los Angeles County Museum in almost thirty years is underway with con-


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PHOTO CREDITS: *Rondal Partridge Photos, Cover, page 10, 11, 12, 17, 25 (top); Phil Fein, Page 15, 16 (bottom), 18, 25 (bottom); Morley Baer, Page 20, 21; Walsh Photos Page 22; Ernest Braun, Page 19; Geo. Knight, Page 16 (top).*

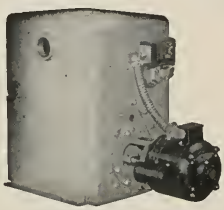
struction of a new wing at the western end of the present building.

Designed by the architectural firm of Riener C. Nielsen and Gene E. Moffatt, the $417,000 addition will provide an auditorium seating 500 persons as well as extensive gallery space connecting with existing galleries on the ground and main floors.

The auditorium will be completely equipped with all facilities for presentation of lectures, films and chamber music concerts, and will have a separate outside entrance so that it can be used as a separate unit on evenings when the museum is closed.

Provision is also being made in the ground floor gallery for a reception area, with kitchen facilities, to permit serving refreshments at special gatherings.


"AMERICAN-MARSH"



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### CALIFORNIA SCHOOL OF FINE ARTS

The California School of Fine Arts, 800 Chestnut Street, San Francisco, is presenting a special exhibition of the work of Robert McChesney during April, comprising some 20 subjects.

The work and Sixth Exhibition of Stefen Novak, will be shown May 3 to 24.

### SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, has announced the following special exhibitions and events for April:

EXHIBITS: Museum Acquisitions; Theodore Roszak, a group of Paintings tracing his development from his discovery of the modern movement, through his interest in geometric abstractions, and his expressive metal sculptures of today; Graphic Arts in Latin American Countries; Art of the Bay Region featuring Nell Sinton and William Brown; and Painting and Sculpture Now, an exhibit of contemporary statements by artists of the Bay Region.

## WITH THE ENGINEERS

(From page 27)

W. W. Brewer, Brewer & Associates, S. F. Gizienski of Woodward, Clyde & Associates, R. T. Lawson of Dames and Moore, and O. E. Merwin, also of Dames and Moore. Brewer, Gizienski and Lawson discussed various aspects of the problem of construction on tidelands including such phases as geology, soils, types of investigation, types of fill, replacements and settlements, and design of foundations for industrial building in a specific tidelands area. Merwin served as moderator and chairman of the meeting.

New members include — Theodore C. York and Harry K. Okino, Members.

### FEMINEERS OF SAN FRANCISCO

George Richardson, vice-president in charge of the San Francisco office of Young & Rubicam, national advertising agency, spoke on the subject of "Advertising" at the April meeting, held in the Women's Athletic Club, San Francisco.

Mrs. Bernard A. Vallerga, Mrs. Alfred M. Sperry and Mrs. George D. Burr served as hostesses for the day.

**ENGINEERING FIRM ANNOUNCED:** Walter W. Beeson and James J. Kesler, Civil Engineers, have announced the formation of the firm Beeson & Kesler, Engineers, and will maintain offices in La Canada, California.

# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

ARCHITECTS' YEAR BOOK 7. By Trevor Dannatt. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $10.00.

Described as "a sober and honest attempt to cover a wide range of current architectural or related activities, and includes articles on theory, color, structure, planning, building techniques and components, as well as illustrating a number of noteworthy recent buildings."

The book includes material on general architecture, small town planning, design, trends in architecture, and other subjects of special importance and interest to the architect and student.

---

THE IDEA OF LOUIS SULLIVAN. By John Szarkowski. University of Minnesota Press, Minneapolis 14. Price $10.00.

Through a series of brilliantly conceived and executed photographs and a unique kind of accompanying text, the author dramatizes the philosophy and architectural genius of Louis Sullivan. Presented are the major structures designed by the nineteenth-century father of modern architecture, whose legacies include a profound influence upon his pupil, Frank Lloyd Wright. The effort here has been to re-enliven, through photography, the fundamental concepts which were born in Sullivan's work, and to capture the mind and the spirit of the man and the time and the place.

---

IMPROVING THE SCHOOL ENVIRONMENT—1956. By Jon S. Peters and Raymond C. Schneider. 128 pages, paperbound. Stanford University. $4.00.

The Sixth Annual School Planning Conference, directed by James D. MacConnell, Associate Professor of Education and Director of the School Planning Laboratory, School of Education, Stanford University provided much of the background material. Detailed presentations by experts in various phases of school planning from policy decision through educational planning, physical control, functional design, and the use of instructional television in improving the school environment is covered.

It is profusely illustrated.

---

STRUCTURES. By Pier Luigi Nervi. Dodge Books, 119 W. 40th Street, New York 18. Price $6.95.

It is not simply the magnificent structures Pier Luigi Nervi has built and his daring innovations in the use of reinforced and prefabricated concrete that makes reading this book an unforgettable experience. Even more it is Nervi's rare creative insight into the entire design and building process.

The photographs and drawings published show over 30 years of the author's activity, and include many photographs taken during the process of construction, while numerous sketches show his use of prefabricated concrete components. The book conveys much highly practical information.

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## NEW CATALOGUES AVAILABLE

***Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.***

**Safe chimney construction.** Brochure now available shows standard recommendations for safe chimney construction; drawings and A.S.T.M. specifications; illustrations describe advantage of clay flue lining in chimney construction; explains how clay flue lining makes homes and buildings fire safe; adaptable to any fuel—gas, oil, coal. Copy free write DEPT-A&E, Clay Flue Lining Institute, 161 Ash St., Akron 8, Ohio.

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**Plastic-finished paneling for walls.** New architects catalog (AIA File No. 23-1) pictures and describes complete line of plastic-finished paneling for walls, ceilings and work surfaces; gives details on predecorated hardboards in 4/ wide sheets, T&G planks (16″x8′) and blocks (16″x16″), 2′x4′ and 2′x8′ hollow core panels which are applied directly over framing; full color photos illustrate in plain colors, wood strains and marble patterns in home, institutional and commercial interiors; matching and harmonizing moldings and other acces-

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sories. Free copy write Marsh Wall Products, Inc., Dover, Ohio.

**Gas and oil furnaces.** Four-page, two-color brochure describes gas and oil furnaces; illustrated, specifications, gives leading mechanical and electrical characteristics of the units, as well as relevant thermal data; drawings and tables. Free copy write DEPT-A&E, S. Byron Stone, Typhoon Air Conditioning Co., 505 Carroll St., Brooklyn 15, N. Y.

**Revolving doors.** New illustrated catalog (AIA File No. 16-G) is streamlined for easy reference; two pages of photographs showing typical arrangements for revolving doors, plus floor plans of arrangements; includes charts and graphs illustrating how revolving doors reduce heating and cooling costs; data on how to plan and use revolving doors with formula showing how to determine specific revolving door requirements and architectural detail of revolving door installations; special three and two wing doors are shown. Free copy write DEPT-A&E, Revolving Door Division, International Steel Co., Evansville 7, Indiana.

**Diamond core drilling.** 2nd Edition of helpful handbook on diamond core drilling, sets forth in simple terms basic techniques which apply to all diamond drilling; 200 operating tips listed range from care of bits to use of wrenches; recommendations for various geological formations and general information about diamonds. Free copy write DEPT-A&E, Joy Mfg. Co., Oliver Bldg., Pittsburgh 22, Pa.

**Duct installations.** New 6-page brochure deals specifically with insulation for air conditioning ducts (AIA File No. 37-D-1-2); explains high insulating value, fire safety and easy application of Spintex; gives pertinent physical and thermal property data, a table of standard sizes, thicknesses and available facings as well as information concerning special facing characteristics; schematic drawings illustrate basic application principles; simplified application specification that can be copied directly by architect or engineer into his own job specifications. Free copy write DEPT-A&E, Johns-Manville, 22 E. 40th St., New York 16, N. Y.

**Concrete color hardener.** New color catalog on Kolorblen Concrete Hardener and Kolorblen Wax Seal; illustrates use; unlimited range of colors available; includes architectural specifications; job application and other useful data for architects, engineers, contractors, builders. Write for free copy DEPT-A&E, Conrad Sovig Co., 875 Bryant St., San Francisco, Calif.

**Sealing curtain wall structures.** New 4-page, 2-color illustrated catalog describes new family of sealers designed for sealing curtain wall structures; lists various types available for sealing curtain walls, building panels and expansion joints together with information on surface and joint preparation, application procedures and sealer properties; drawings, illustrations, methods. Free copy write DEPT-A&E, Adhesives and Coatings Div., Minnesota Mining & Mfg. Co., 423 Piquette Ave., Detroit 2, Mich.

**Playground equipment.** A 36-page catalog (AIA File No. 35-F-5) featuring newest line of playground equipment developed in the last eight years; fully illustrated, gives complete description of more than 280 different items of playground equipment and prices. Copy available write DEPT-A&E, Jamison Mfg. Co., 8800 Mettler St., Los Angeles 3, Calif.

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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$135.00 up (according to class of work).
Face Brick—Per 1 M laid—$200.00 and up (according to class of work).
Brick Steps—$3.00 and up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.50 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |
| F.O.B. Plant | |

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| Brownskin, Standard 500 ft. roll | 6.85 |
| Siselkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plesterboard, 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deedening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deedening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| **Sand—** | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**

Common (all brands, paper sacks). Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl. ..... 4.14

Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.

Cash discount on L.C.L. ..... 2%

Trinity White, 1 to 100 sacks, $4.00
Medusa White, sack, warehouse or
Cataveres White, delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20

Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | --- | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ⅛-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square.
Membrane waterproofing—4 layers of saturated felt, $13.50 per square.
Hot coating work, $6.00 per square.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

**ELECTRIC WIRING**—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 22c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.50 per sq. yd.
Battleship Linoleum—$5.00 sq. yd. & up laid.
Terazzo Floors—$2.00 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
**Mastic Wear Coat**—according to type—20c to 35c.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | ⅝x2¼ | ½x2 | ⅜x2 | ⅜x2 |
|---|---|---|---|---|
| Clear Otd., White | $425 | $405 | $ | $ |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standerd |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ⅝ x 2¼ | 390.00 | 381.00 |
| ⅝ x 2¾ | 375.00 | 355.00 |
| ⅝ x 3¼ | 395.00 | 375.00 |
| ⅝ x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| ⅝ x 2¼ First Grade | $390.00 |
| ⅝ x 2¼ 2nd Grade | 365.00 |
| ⅝ x 2¼ 2nd & Btr. Grade | 375.00 |
| ⅝ x 2¼ 3rd Grade | 240.00 |
| ⅝ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ⅝ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |
| Floor Layer Wage $2.83 per hr. | |

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

**Furnaces—Gas Fired**

| | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| **Water Heaters—5-year guarantee** | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less then 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-S1S ..... $150.00
½-inch, 4.0x8.0-S1S ..... 200.00
¾-inch, per M sq. ft. ..... 260.00
Plysform ..... 160.00

**Shingles (Rwd. not available)—**

Red Ceder No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.

Average cost to lay shingles, $6.00 per squere.

Ceder Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25

¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00

Average cost to lay shakes, $8.00 per squere.

**Pressure Treated Lumber—**
Salt Treated ..... Add $35 per M to above
Creosoted,
8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50

Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).

Complete door unit, $21-$32.

Screen doors, $10 to $15 each.

Patent screen windows, $1.75 a sq. ft.

Cases for kitchen pantries seven ft. high, per lineal ft., upper $12 to $15; lower $14 to $15.

Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.

Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.

For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .80 |
| Three-coat work | per yard | 1.20 |
| Cold water painting | per yard | .35 |
| Whitewashing | per yard | .20 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

Price to Painters—Price Per 100 Pounds

| | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ .... | $ .... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.50 lineal foot |
| 8-inch | 3.00 lineal foot |
| 10-inch | 4.00 lineal foot |
| 12-inch | 5.00 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.50 |
| Keene cement on metal lath | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.50 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.25 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.

Less than 30 sqs. $18.00 up per sq.

Tile $40.00 to $50.00 per square.

No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25

5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 14.50

5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per squere.. 18.25

4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per squere ..... 23.00

Re-coat with Gravel $5.50 up per sq.

Asbestos Shingles, $27 to $35 per sq. laid.

½ to ¾ x 25" Resawn Cedar Shakes,
10" Exposure ..... $24.00 to $30.00

¾ to 1¼ x 25" Resawn Cedar Shakes,
10" Exposure ..... $28.00 to $35.00

1 x 25" Resawn Cedar Shakes,
10" Exposure ..... $20.00 to $22.00

Above prices are for shekes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.

| | |
|---|---|
| Standard, 4-in. | $ .26 |
| Standard, 6-in. | .46 |
| Standard, 8-in. | .66 |
| Standard, 12 in. | 1.30 |
| Standard, 24-in. | 5.41 |

Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:

| | |
|---|---|
| Standard, 6-in. per M | $240.00 |
| Standard, 8-in. per M | 400.00 |

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

| | |
|---|---|
| Galvanized iron, per sq. ft. | $1.50 |
| Vented hip skylights, per sq. ft. | 2.50 |
| Aluminum, puttyless, (unglazed), per sq. ft. | 1.25 |
| (installed and glazed), per sq. ft. | 1.85 |

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.

$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less then 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.85 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.85 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.50 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - ¾" ..... $ .18 - $ .35 sq. yd.
Light shades slightly higher.
Cork Tile—$ .70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**
Scored ..... F.O.B. S. F.
12 x 12, each ..... $ .17

| Kraftile: Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x ⅓-inch, plain | $ .28 | $ .253 |
| 6 x 12 x ⅓-inch, plain | .295 | .265 |
| 6 x 6 x ⅔-inch, plain | .32 | .287 |

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

## VENETIAN BLINDS—

50c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4: 1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
**Face Brick**
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121

KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
O. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
LOUIS V. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

JOSAM PACIFIC CO.
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**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco: 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Sholwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
PATRICK J. RUANE
San Francisco: 44 San Jose Ave., MI 7-6414

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SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

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San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
San Francisco: 621 Bayshore Blvd., JU 4-6670
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT SALES CO. OF NO. CALIF.
Berkeley: 1000 Ashby Ave., TH 3-4964

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
D. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHNERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
San Francisco: 198 Mississippi St., UN 1-0273

**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
Los Angeles: 3450 Wilshire Blvd., DU 8-9591

**TIMBER TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**TRUCKING**
PASSETTI TRUCKING CO.
San Francisco: 264 Clementina St., GA 1-5297

**UNDERPINNING & SHORING**
D. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

**WALL PAPER**
WALLPAPERS, INC.
Oakland: 384 Grand Ave., GL 2-0451

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE 1-1345

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C.: 681 E. Hastings St.
Seattle: 304 So. Alaskan Way

**WINDOW SHADES**
SHADES, INC.
San Francisco: 80 Tehama St., DO 2-7092

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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**BRASS MILL FACTORY,** Newark, Alameda County. Titan Metal Mfg. Co., Bellefonte, Penn., owner. 1-Story structural steel frame, reinforced concrete, window walls; 82,000 sq. ft. area; Mill building $490,000. Office building $50,000. ENGINEER: Rosendahl Corp., 100 Bush St., San Francisco. SOIL ENGINEERS: Dames & Moore, 340 Market St., San Francisco. GENERAL CONTRACTOR: Rosendahl Corp., 100 Bush St., San Francisco.

**OFFICE BLDG.,** Long Beach, Los Angeles County. Charles and Kathryn Morgan, Long Beach, owner. 2-Story pre-cast concrete panel office building, built-up composition roofing, plaster and wood panel interior, acoustical tile, concrete slab, plyscore, asphalt tile and carpet floors, air conditioning, louvered sash, laminated plastic counter tops, accordion doors, adjustable metal louvers—$75,000. ARCHITECT-ENGINEER: Charles P. Morgan & Associates, Architect and Engineers, Room 608 Farmers and Merchants Bldg., Long Beach. GENERAL CONTRACTOR: Millie & Severson, 1485 Canal Ave., Long Beach.

**FAIRVIEW STATE HOSPITAL,** Orange County. State of California, Sacramento, owner. Two ward buildings, two security wards, covered passages to link buildings, site development—$3,121,970. ARCHITECT: State Architect, Sacramento. GENERAL CONTRACTOR: Robert E. McKee, Los Angeles.

**RESTAURANT,** Phoenix, Arizona. Park Central Development, Phoenix, Ariz., owner. Reinforced masonry restaurant, grill and cocktail lounge, built-up composition roofing, air conditioning, concrete slab, asphalt tile, insulation, metal lath, steel sash, terrazzo tile work, plate glass; 7,500 sq. ft. in area. ARCHITECT: Welton Becket & Associates, 5657 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Kitchell-Phillips Contractors Inc., 1706 W. Buchanan St., Phoenix, Ariz.

**SUNNYVALE HIGH SCHOOL ADD'N.,** Sunnyvale, Santa Clara County. Fremont Union High School District, Sunnyvale, owner. 1-Story steel frame, steel roof joists, wood roof deck, wood


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exterior and stucco, concrete floors, aluminum windows, asphalt tile, asphalt-gravel roofing; facilities for shop, and new auto shop—$122,045. ARCHITECT: Masten, Hurd & Dick, 526 Powell St., San Francisco. GENERAL CONTRACTOR: N. A. Lamb, 103 W. El Caminito Ave., Campbell.

**SWIMMING POOL,** Downey High School, Modesto, Stanislaus County. Modesto Unified School District, Modesto, owner. Reinforced concrete swimming pool with all facilities, rest rooms, showers —$55,236. ARCHITECT: Harry J. Devine, 1021 J. St., Sacramento. GENERAL CONTRACTOR: Dennis Co., 2385 Fair Oaks Blvd., Sacramento.

**FACTORY,** North Hollywood, Los Angeles County. Ronald Lazar, North Hollywood, owner. Brick wall, built-up roofing, truss roof, skylights, slab floor, electrical work, glass blocks, sheet metal, 90x282 ft. —$75,000. STRUCTURAL ENGINEER: Eugene D. Birnbaum, Structural Engineer, 1626 Silverlake Blvd., Los Angeles. GENERAL CONTRACTOR: Perma Finish Co., 1814 N. Hillhurst Ave., Los Angeles.

**CLOVERDALE HIGH ADD'N.,** Cloverdale, Sonoma County. Cloverdale Union High School District, Cloverdale, owner. Additional facilities will provide 2 classrooms, library, arts and crafts rooms—$78,580. ARCHITECT: J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa. GENERAL CONTRACTOR: Dane Walker, Box 191, Cloverdale.

**FRATERNITY HOUSE,** Berkeley, Alameda County. Phi Sigma Kappa, Berkeley, owner. 2 and 3-Story wood frame construction with parking area in rear of site—$102,000. ARCHITECT: Ponsford & Price, 524 20th St., Oakland. GENERAL CONTRACTOR: D. McGregor, 817 Howard St., San Francisco.

**CHURCH,** Long Beach, Los Angeles County. Church of Religious Science, Long Beach, owner. Frame and stucco, 15 rooms, 2 auditoriums with seating capacity of 120 and 196 persons, platforms, stainless steel kitchen, office and classrooms, composition and gravel roofing, aluminum casement, louvred and fixed plate glass sash, colored cement, oak, carpet and asphalt tile floors, acoustical plaster, perimeter forced air heating, laminated plastic counter tops, terrazzo in rest rooms, metal toilet partitions, blacktop parking area—$75,000. ARCHITECT: Richard George Wheeler & Associates, 2507 4th Ave., San Diego. GENERAL CONTRACTOR: Ernest Adler & Son, 622 Cartagena, Long Beach.

**HOSPITAL ADD'N.,** San Jose Hospital, San Jose, Santa Clara County. San Jose Hospital, San Jose, owner. 4-Story, Type I, addition to present hospital building to provide facilities for 120 beds; reinforced concrete and steel construction—$1,852,000. ARCHITECT: Stone, Mulloy, Marraccini & Patterson, 619 California St., San Francisco. GENERAL CONTRACTOR: O. E. Anderson, 1075 N. 10 St., San Jose.

**TELEPHONE OFFICE,** Inglewood, Los Angeles County. Pacific Tel. & Tel., Los Angeles, owner. 1-Story masonry office building, composition roofing, plate glass windows, concrete slab and asphalt tile covered floors, acoustical ceilings, air

conditioning, insulation, plumbing; 12,000 sq. ft. of area. ARCHITECT: Ward R. Helman, 209 E. Foothill Blvd., Arcadia. GENERAL CONTRACTOR: R. E. Payne, 327 E. Florence Ave., Inglewood.

**EXHIBIT STALLS,** Fairgrounds, King City, Monterey County. King City-Salinas Valley Fairgrounds Ass'n., King City, owner. Construction of additional facilities — $10,284. ARCHITECT: Jerome Kasavan, 7 Winham St., Salinas. GENERAL CONTRACTOR: Hiram G. Matthews, 765 Josephine St., Salinas.

**SELF-SERVICE GARAGE,** Berkeley, Alameda county, City of Berkeley, Berkeley, owner. 5-Story reinforced concrete, split-level open type, self-service ramp garage with facilities for parking 455 cars—$692,600. ENGINEERS: Headman, Ferguson, & Carrollo, 2168 Shattuck Ave., Berkeley. GENERAL CONTRACTOR: Robt. L. Wilson, 850 29th Street, Oakland, California.

**WAREHOUSE,** Los Angeles. Harry Warner, Los Angeles, owner. Warehouse building, brick walls, composition roofing, structural steel, rotary roof vents, rest rooms, plastering, asphalt paving, electrical, sheet metal—$22,000. ENGINEER: Armond Saltman, 5319 Hollywood Blvd., Hollywood. GENERAL CONTRACTOR: Harry Warner, 439 Le Doux Rd., Los Angeles.

**CONVENT,** St. Columbian Parish, Garden Grove, Los Angeles county. Roman Catholic Archbishop of Los Angeles, Los Angeles, owner. 2-Story frame and stucco construction, mission tile roofing, metal sash, forced air heating, acoustical tile, asphalt tile, lath and plaster, painting, plumbing, electrical work, 2-car garage with overhead doors; 6500 sq. ft. area. ARCHITECT: Anthony A. Kauzor, 2033 W. 7th Street, Los Angeles. GENERAL CONTRACTOR: Benson-Irino, 1111 N. West Ave., Anaheim.

**TRACT DWELLINGS,** Pacoima, Los Angeles county. Paxton Homes Pacoima, owner. 79 Dwellings, frame and stucco construction, composition roof, concrete slab, wall heaters, garbage disposals, electric bath heaters, attached garages; project cost $732,400. ARCHITECT: Paul J. Duncan, 13310 Moorepark, Sherman Oaks. GENERAL CONTRACTOR: Eisen-Hart Co., 13567 Ventura Blvd., Sherman Oaks.

**OFFICE BLDG.,** Fullerton, Orange county. Hunt Foods Co., Fullerton, owner. 1-Story reinforced concrete office building, composition roofing, concrete floor, floor covering, painting, plasterng, plumbing, electrical work, heating and ventilating, vault, acoustical tile, air conditioning, metal sash, sheet metal, structural metal; 20,000 sq. ft. of area—$275,000. ARCHITECT: McLellan and Fortune, 816 W. 5th St., Los Angeles. GENERAL CONTRACTOR: Carter Co., 1721 W. Olympic Blvd., Los Angeles.

**SCHOOL ADDITION,** Las Palmas School, National City, San Diego county. National School District, National City, owner. Additional facilities comprising 2 kindergartens, assembly-cafeteria, 3 classrooms; frame and stucco construction, composition roof, slab and asphalt tile floors, asphalt paving, insulation, plastering, steel sash, sheet metal work, steel roof trusses, tile work, waterproofing; 14,520 sq. ft. of area. ARCHITECT: Clyde Hufbauer, 1975 5th Ave., San Diego. GENERAL CONTRACTOR: Lee J. Morgan, Box 326 National City.

**INDUSTRIAL BLDG.,** South Gate, Los Angeles county. Roy Clayton, South Gate, owner. 1-Story rigid frame and galvanized corrugated siding industrial building; steel trusses and purlins, galvanized corrugated iron roofing, 4-in concrete floor, open end; 1544 sq. ft. of area. ENGINEER: Jack E. Spencer, 10700 Sessler St., South Gate. GENERAL CONTRACTOR: Dudley Sales & Engineering Co., 10700 Sessler St., South Gate.

**INDUSTRIAL BLDG.,** Burbank, Los Angeles county. John A. Markham, Burbank, owner. Reinforced masonry industrial building, composition roofing, wood roof sheathing, concrete slab, steel sash, rotary roof ventilators, structural steel, rest rooms, electrical work; 4000 sq. ft. of area. ENGINEER: H. L. Standefer, Consulting Engineer, 4344 Laurel Canyon Blvd., Studio City. GENERAL CONTRACTOR: John A. Markham, 10561Mahoney Dr., Sunland.

**CHURCH BLDG.,** St. Hilary Parish, Pico, Los Angeles county. Roman Catholic Archbishop, Los Angeles, owner. Reinforced brick, composition gravel roof, concrete floor, laminated wood beams and columns, steel sash, extruded aluminum entrance, roof insulation, acoustical plaster, vinyl tile, painting, plumbing—$166,355. ARCHITECT: Chaix & Johnson, 2504 W. 7th St., Los Angeles. GENERAL CONTRACTOR: Ben K. Tanner & Son, 387 S. Robertson Blvd., Beverly Hills.

**BANK BLDG.,** Boulder Creek, Santa Cruz County. County Bank of Santa Cruz, owner. Construction of a new bank build-


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ing with all modern facilities—$40,200. ARCHITECT: Kermit & Darrow, Mission and Center, Santa Cruz. GENERAL CONTRACTOR: Werner Jasper, Sunnyside Ave., Ben Lommond.

**SUNDAY SCHOOL ADD'N.,** San Leandro, Alameda county. Bethel Presbyterian Church, San Leandro, owner. 1-Story frame and stucco addition of 6,000 sq. ft. to present building; comprises facilities for 9 classrooms and rest rooms. ARCHITECT: Floyd B. Comstock & Associates, 1620 Cypress St., Walnut Creek. GENERAL CONTRACTOR: Chas. E. Foster, 14839 Lark Street, San Leandro.

**HIGH SCHOOL ADD'N.,** Castro Valley, Alameda county. Hayward Union High School District, Hayward, owner. Construction of additional area to present building to provide facilities for administration offices, 2 classrooms, special activities area, and rest rooms—$103,690. ARCHITECT: Anderson & Simonds, 2800 Park Blvd., Oakland. GENERAL CONTRACTOR: Ed Eoff Co., 1430 Nevin Ave., Richmond.

**GARDEN HOTEL,** Sunnyvale, Santa Clara county. Hugh Jack, Corpn., Santa Clara owner. New hotel of 120 units; 2-story, restaurant, lounges, swimming pools, banquet rooms and complete hotel facilities. ARCHITECT: Ned Abrahams, 573 Britton Ave., Sunnyvale. GENERAL CONTRACTOR: Utah Construction Co., 100 Bush St., San Francisco.

**SWIMMING POOL and BATHHOUSE,** Fairfield, Solano County. Fairfield, owner. Construction program includes modern pool and all facilities including bathhouse, restroom facilities and showers. ARCHITECT: John Lyon Reid & Partners, 1069 Market St., San Francisco. GENERAL CONTRACTOR: J. L. Webster Const., P. O. Box 43, Galt, Calif.

**PRINTING FACTORY & OFFICE,** Van Nuys, Los Angeles County. Deleco Corp., St. Paul, Minn., owner. Masonry factory and office, 209x202 ft., gypsum roof, composition roofing, concrete slab, steel beams, pipe columns, ceramic tile, asphalt tile, vinyl tie, plaster, terrazzo, plate glass, locker rooms, overhead doors, vault, toilets, kitchen-dining room, penthouse, wrought iron fence and gate—$375,000. ARCHITECT: Alfred Boeke (Hutchinson, Kinsey & Boeke) 12345 Ventura Blvd., North Hollywood. GENERAL CONTRACTOR: Kersey Kinsey Co., North Hollywood, Calif.

**FIFTH FLOOR ADDITION,** County Administration Building, Sacramento. County of Sacramento, Sacramento, owner. Reinforced concrete and structural steel and steel frame addition to the present County Administration Building to provide a fifth floor facility—$160,800. GENERAL CONTRACTOR: Charles F. Unger, 2210 Sutterville Rd., Sacramento.

**BOWLING ALLEY,** Garden Grove, Los Angeles County. Novak & Starzzari, Garden Grove, owner. Facilities will include restaurant, cocktail lounge, office, and 20 bowling lanes; automatic pin setters, masonry and poured concrete, built-up composition roofing, hardwood panel interior, acoustical tile and plaster ceilings, concrete slab floor with carpeting and asphalt tile, air conditioning and forced air heating, fixed plate glass, aluminum store front, ceramic tile in restrooms, metal toilet partitions, laminated plastic counter tops, recessed and flourescent lighting, fireplace; 3300 sq. ft. in area. ARCHITECT: Anthony & Langford, T. V. Anthony, architect, 1316 E. Rosecrans Ave., Compton. GENERAL CONTRACTOR: Novak & Strazzari, 11962 Margie Lane, Garden Grove.

**NEW ELEMENTARY SCHOOL,** Mesa Ariz. Maricopa County Board of Supervisors, Phoenix, owner. Completely new Elementary School plant in Mesa for School District No. 4—$356,800. ARCHITECT: Horlbeck & Hickmann, 32 N. Hibbert St., Mesa. GENERAL CONTRACTOR: T.G.K. Construction Co., 2750 W. McDowell Rd., Phoenix, Ariz.

**OFFICE & DISTRIBUTION CENTER,** South San Francisco, San Mateo County. J. H. Coffman & Son, Inc., San Francisco, owner. 1-Story reinforced concrete tilt-up construction; 40,000 sq. ft. of area — $250,000. ARCHITECT: J. Francis Ward, 215 Leidesdorff St., San Francisco. GENERAL CONTRACTOR: Associated Contractors, 2903 Geneva Ave., San Francisco.

**GRANDSTAND ROOF,** Fairgrounds, San Jose, Santa Clara County. County of Santa Clara, San Jose, owner. Construction of a roof over a portion of the grandstand area of the Fairgrounds in San Jose—$99,972. ARCHITECT: C. J. Ryland, 847 Abrego, Monterey. GENERAL CONTRACTOR: Gresham Const. Co., Inc., P. O. Box 300, Santa Clara.


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# IN THE NEWS

### NEW JUNIOR HIGH SCHOOL

Architect Lawrence G. Thomson, 125 W. 3rd St., Chico, is preparing drawings for construction of a new Junior High School in Chico for the Chico Union School District of Chico.

### ELEMENTARY SCHOOL FOR SANTA ANA

Architect Harold Gimeno, 1400 N. Sycamore St., Santa Ana, has completed plans for construction of the new James Madison Elementary School for the Santa Ana City School District.

The project includes 4-buildings with site improvement; 11-classrooms, administration, 2-kindergartens, multi-purpose rooms, toilet facilities, fenced play yard, auditorium and stage; stucco, slab floor, composition roof; 18,000 sq. ft. of area, and the estimated cost is $325,000.

### 1957 RUBBER FLOOR DESIGN COMPETITION

The first rubber floor design award competition for architects, designers and installers has been announced for 1957 by the Rubber Flooring Division of the Rubber Manufacturers Association, Inc., New York City.

All entries must be postmarked not later than midnight, December 31, 1957, and shall consist of an Official Entry Data Sheet and two different original photographs of the floor, indicating by sketch of film, the colors used. Floor installations must have been made in an institutional building—school, college, university, hospital library, religious building, museum, and publicly-owned buildings—, or commercial buildings, and have been completed during the year 1957.

Entries will be judged by a panel of three impartial judges on the basis of good design, originality, function and an expressive use of the inherent qualities of the product. Decision of the judges will be final.

The competition is open to architect, industrial designers, interior designers and decorators and flooring installers in business within the continental U.S.

### BOYS CLUB BUILDING

Architect Herbert T. Johnson, 4225 Gregory St., Oakland, and the structural engineering firm of Hall-Pregnoff & Mathiew, 251 Kearny St., San Francisco, are preparing drawings for construction of a new Boys Club building in San Leandro for the City of San Leandro.

Plans call for a 1 and 2-story, 100x300 ft., masonry building with an outside play area. Included in the building is a gymnasium, auditorium, swimming pool, crafts, games and meeting rooms, administraton facilities and toilets. Estimated cost is $150,000.

### HART'S DEPARTMENT STORE EXPANDS

Construction of the first Hart's Department Store of San Jose branch has been started in a new shopping center in Sunnyvale, according to Alex J. Hart, president of the firm.

The new store will represent an invest-


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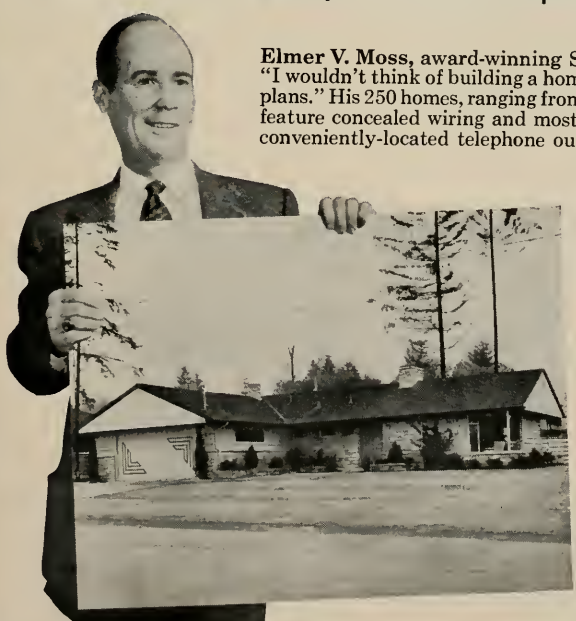

**Elmer V. Moss,** award-winning Seattle builder, says "I wouldn't think of building a home without telephone plans." His 250 homes, ranging from $13,250 to $30,000, feature concealed wiring and most of them have three conveniently-located telephone outlets.

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ment of more than $2,000,000; will contain 63,000 sq. ft. of area; fully air conditioned, reinforced concrete stone exterior with aluminum trim, large glass windows.

Architect for the project is John S. Bolles, AIA, San Francisco.

### AIR FORCE TAKES CAMP COOKE

The major portion of the Camp Cook Military Reservation at Lompoc, California, has been transferred from the US Army to the US Air Force to be used as a base for training Air Force missile units.

Extensive rehabilitation, modernization, and construction will be required over an extended period, with the initial cost involving some $25,000,000.

Koebig & Koebig Consulting Engineers of Los Angeles have been retained to design the facilities, while Holmes & Narver Architectural-Engineering organization of Los Angeles has been commissioned to design the technical facilities.

Design of technical facilities is under the supervision of Colonel William E. Leonhard, Director of Installations, Western Development Division, Inglewood, and Colonel Edwin M. Eads, AF Installations Representative, South Pacific Region, San Francisco, will monitor construction of the new facilities.

### ED DAVIDSON NAMED NEW BRANCH MANAGER

Ed Davison has been appointed manager of the newly established Pacific Northwest Branch of Sun Valley Industries, Inc., located in Seattle, Washington, according to an announcement by Fred Van Ness, president of the firm.

The Seattle branch will service the territory of Washington, Oregon, Idaho and Montana. Main offices of the firm are located in Southern California.

### RAINCOAT PROVIDED WESTERN INDUSTRIES

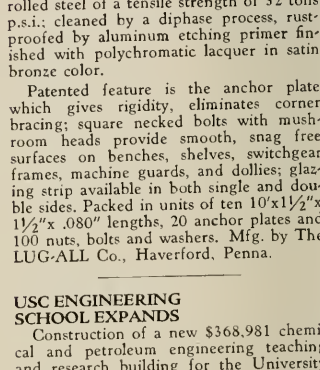
Production of a multi-color cement base paint designed to prevent water seepage in basements, silos, elevator pits, and other similar type construction is now underway at the San Francisco and Los Angeles plants of A. C. Horn Co., Inc., a subsidiary of Sun Chemical Corporation.

Industrial and institutional buildings throughout the eleven western states will be served from sales offices in all principal cities in the area.

This new product is ideal for use on rough porous masonry where it will withstand low hydrostatic water pressure and the damaging effects of wind-driven rain, and may be applied on either dry or wet walls.

### LUG-ALL'S NEW HANDY ANGLE

Introducing a new product through a newly created HANDY ANGLE Division, the LUG-ALL Co., makers of LUG-ALL Winch-Hoist, offers this scientifically and sensibly designed basic component that solves equipment problems quickly and easily.



The slotted angle is made from cold rolled steel of a tensile strength of 32 tons p.s.i.; cleaned by a diphase process, rustproofed by aluminum etching primer finished with polychromatic lacquer in satin bronze color.

Patented feature is the anchor plate which gives rigidity, eliminates corner bracing; square necked bolts with mushroom heads provide smooth, snag free surfaces on benches, shelves, switchgear frames, machine guards, and dollies; glazing strip available in both single and double sides. Packed in units of ten 10′x1½″x 1½″x .080″ lengths, 20 anchor plates and 100 nuts, bolts and washers. Mfg. by The LUG-ALL Co., Haverford, Penna.

### USC ENGINEERING SCHOOL EXPANDS

Construction of a new $368,981 chemical and petroleum engineering teaching and research building for the University of Southern California School of Engineering has been started, according to an announcement by University officials.

Architect for the work is Smith, Powell & Morgridge. Contractor is the J. A. McNeil Co., Inc. Preliminary plans were prepared by Lawrence Test, Architect.

### LEGAL ASPECTS OF CONSTRUCTION

Legal aspects of construction specifications was the subject of a talk by Robert E. Burns, attorney for the California Coun-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cil, AIA, at a recent meeting of the San Francisco Area Chapter, Construction Specifications Institute.

Burns pointed out that the specifications are an important part of the contract, a legal document. Legal rules for the interpretation require that the intent of the architect, or engineer, preparing them to be used as a basis. This makes it necessary for this intent to be clearly and definitely expressed.

Unless the specifications are clear and definite, the intent is often subject to question. When the architect, or engineer, has one interpretation and the contractor another, the way is opened for trouble. Arbitration or court cases involve money and delay, and the only one to benefit is the attorney involved.

Ambiguity is a serious defect. Discrepancies between drawings and specifications should be provided for by a statement of which shall govern.

### COGHLAN BECOMES FIRM PARTNER

Architect R. Redmond Coghlan of San Gabriel has been appointed a partner in the Southern California architectural firm of Smith, Powell & Morgridge, Architects and Engineers, whose main offices are located in Los Angeles.

Coghlan, an architectural graduate of the University of Southern California, is president of the Southern Calrifornia Chapter of the Construction Specifications Institute.

Other partners in the 30-year-old firm are David D. Smith, Herbert J. Powell, Howard H. Morgridge and Albert A. Richards.

### AMVET HOUSING POST GIVEN TO O'SULLIVAN

J. William O'Sullivan, Los Angeles building material executive, has been appointed to the National Housing Committee of the AMVETS, according to an announcement by James J. Kehoe, chairman of the housing committee of the veterans organization.

O'Sullivan has long been identified with the building industry in Southern California and has been actively identified with AMVETS in California.

### ADDED CANDLE POWER ASSURES EYE COMFORT

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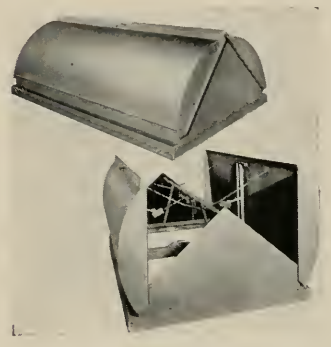
### ARCHITECTURAL OFFICES MOVE

Edwards-McKay and Associates, San Fernando Valley architectural firm has moved into new and larger offices at 14445 Riverside Drive, Sherman Oaks, according to an announcement by Robert L. McKay, partner of the organization.

### FIRE RELIEF ROOF VENT

A new quick-opening fire vent to permit rapid escape of smoke, heat and gasses in event of fire that is installed and operated entirely above the roof line.



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### ARCHITECT HONORED

Kent J. Attridge, architect with Welton Becket and Associates, architects and engineers, Los Angeles, has been elected to full membership in the Acoustical Society of America, officials of the organization announced.

Attridge, who resides in Beverly Hills,


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was honored for his "substantial contribution to the advancement of acoustical science in the field of architectural acoustics."

Among his many projects are the Hollywood Bowl, Santa Monica Civic Auditorium now under construction, and the University of California at Los Angeles music building.

### LAWRENCE C. MILLER NAMED FIELD ENGINEER

Lawrence C. Miller has been appointed Field Engineer for Spokane, southeast Washington and north central Idaho, for the Portland Cement Association.

Miller is a 1951 graduate of Washington State College with a B. S. degree in civil engineering; a junior member of the American Society of Civil Engineers, The Structural Engineers Association of Washington and a member of Tau Beta Pi.

### MAUSOLEUM SAN MATEO

Architect Albert K. Williams, 251 Post St., San Francisco, is preparing plans and specifications for construction of a large Mausoleum at the Lawndale Cemetery in San Mateo County for the Societa Mutua Beneficenza of Italiano.

### NEW CLINIC AND SURGERY BLDG.

Architect Hewitt C. Wells, 165 Jessie St., San Francisco, is preparing plans for construction of a new Clinic and Surgery building for Mary's Help Hospital in San Francisco.

The project includes a 2-story steel and concrete building at an estimated cost of $1,000,000.

### SANTA MONICA OFFICE BUILDING

The architectural firm of Richard Dorman & Associates, 221 N. Robertson Blvd., Beverly Hills, is working on drawings for construction of a 9-story office building with 3-levels of subterranean parking in Santa Monica for the Amster-Gross Corp.

The building will be 200,000 sq. ft. in area, lift-slab construction, movable mechanical sidewalk escalators from the parking area, and will cost an estimated $3,000,000.

### SCHOOL BOND ELECTION

Electors of the Santa Monica School District will vote on a proposal to issue and sell bonds in an amount of $10,500,000 on June 4, to be used for the construction of various school buildings in the district.


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*Picture of John Wise from AMERICAN HERITAGE*

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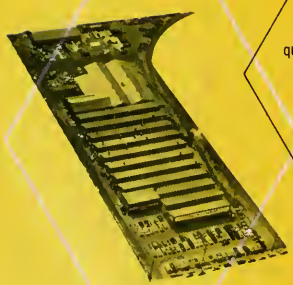

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# ARCHITECT
# AND
# ENGINEER

MAY, 1957

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Phi Kappa Sigma Fraternity, Berkeley, California.
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Ratcliff and Ratcliff, Architects

ARISTON
Metal Products
SINCE 1912

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**STEEL FOR BEAUTY!** Kellogg High School, Kellogg, Idaho, is a dramatic example of the functional beauty that can be achieved through steel. Fabricated by Gate City Steel, Boise, Idaho, using United States Steel angles, plates, and structurals, it contains 68,000 square feet of space. The contemporary design provides maximum lighting for students and is a permanent structure, economical to maintain. Culler, Gale, Martell, Norrie, of Spokane, Wash., and Perkins and Will, of Chicago, Ill., were associated architects.

**STEEL FOR ECONOMY!** The Green River School in Utah was built at a cost of less than $10 per square foot . . . one of the most economical school buildings in the Intermountain West! This modern structure features an all-welded frame . . . one of the first in this area. Architects were Cannon, Smith & Gustavson, Salt Lake City. Dean L. Gustavson—partner in charge.

**STEEL FOR VERSATILITY!** Exposed steel trusses solved a problem in the construction of the Green River School's gymnasium . . . and saved about $30,000 in building costs! Since soil conditions required the building to be founded on pilings, the gym could be recessed half its height into the ground. This unique design allowed for a continuous roof plane. For *your* next project, consider the advantages of steel—United States Steel.

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UNITED STATES STEEL

Vol. 209 No. 2

# ARCHITECT AND ENGINEER

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# . EDITORIAL NOTES .

## STEEL'S CENTENNIAL—1957

This year the steel industry is marking its Centenial. Steel plants across the land are planning programs and ceremonies to focus attention on the 100th birthday of one of our most basic industries.

Although the art of steelmaking was known for thousands of years it wasn't until the mid-1850's that the "Steel Age" began in America. The event which marked the beginning of the new era was the invention of the Bessemer converter process of steelmaking. The process, developed almost simultaneously by Henry Bessemer of England and William Kelly of the United States, made it possible for the first time to produce large quantities of steel, economically at a rapid rate.

Since Bessemer and Kelly's process unlocked the door to the machine age, America's growth and the steel industry's have paralleled one another. Industrial achievements such as the open-hearth and electric furnace processes, the continuous rolling mill and electrolytic tinning line have meant increased and more efficient steel production. The result has been an ever widening range of commodities which have constantly increased our high standard of living.

Today, the steel industry is continuing to pioneer. New machines incorporating the latest technical advances are making their way into steelmaking. The country is calling for more and more steel and the steel industry is meeting the challenge.

With a century of dynamic growth, technological achievement and public service behind it, the industry is looking ahead—to the next hundred years.

* * *

## PERHAPS IT WAS A STRAW!

"It only takes a straw to break a Camel's back."

The humble Camel has been recognized for many centuries as a loyal beast of burden capable of carrying tremendous loads on its back, and somewhere back in mankind's early stages of development it was learned that even a Camel has load-limitations, and that as little as a straw can be sufficient added weight to "break the Camel's back" and thereby render him useless for any further service.

While humans were learning this fundamental law of nature, they failed to recognize the fact that there is a limit in the laws of economics beyond which the assessment of taxes represent a "straw." And while the history books are replete with records of great peoples, and great nations, that have traveled the road to oblivion because of excessive taxation, modern nations and peoples have accepted rising taxes with little more than individual grumbling.

Why, then, did President Eisenhower's $72-billion Federal budget for fiscal 1958 touch off such public protests from every segment of society in every part of the country?

Perhaps it's because total federal, state and local tax collections amounted to $89.6-billion in 1954, and two years later the figure had jumped to $107.6-billion, and if the trend since 1929 continues for another fifty years, about 99% of our economy will be socialized and only one person out of every 100 will be privately employed.

Our national income today is $343-billion, so, at present about one-third of the national income is going to pay the tax bill, and we spend one-third of our working days each year, working for taxes.

Just think of it! four months work each year to pay our tax bill; perhaps that's why the President's all peace-time high budget reached the category of a "straw", and the John and Jane Doe's of the nation began to see a sagging in the Camel's back.

* * *

## AGC SAFETY PROGRAM PAYS OFF

Last year members of The Associated General Contractors of America registered the safest year in the association's history, and showed a significant improvement over the accident rate for all contract construction.

Chief reason for this outstanding safety record is the constantly increasing interest AGC members have been showing in making their jobs safer places to work. In 1955 there were 2,676 firms, or better than one out of every three, participating in the association's safety program. In 1956, 3,260 firms, or nearly one out of two, took part in the program.

The end result of this increased interest in accident prevention has been a general decline during the past year in the number and severity of accidents. In 1955 AGC firms reported an average of 35.6 accidents and 2,851.6 days lost per million man-hours worked.

In 1956 these rates dropped respectfully to 29.6 accidents and 2,826.2 days lost per million man-hours, indicating that the mishaps which did occur were not as frequent or severe. These frequency rates compare very favorably with government figures for all types of construction.

The important fact to remember is that as improvement is made in accident records the construction workers gain the most from the program, with the public and the construction industry receiving the secondary benefit of lower construction costs.

# NEWS and COMMENT ON ART

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Beatrice Judd Ryan, is presenting the following exhibits during the Month of May:

"Paintings" by Muriel Branegan Bacon and Joseph H. Bennett, through May 23rd; and a group of Thirty Small Vistas, by Fred Martin. On the Fourth Floor will be shown Andre Laherrere, director.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is presenting a number of outstanding exhibits and special events for May, including the following:

EXHIBITIONS: "Nature Into Art", an unusual exhibition consisting of Japanese fish prints, natural wood forms, and sea flora, designed to demonstrate how natural forms through human ingenuity and taste may be transferred into objects of pleasing character. "Sea Flora", from the collection of Mrs. Marin Waterhouse Pepper of Bolinas, California, includes exquisite ferns, grasses and flowers from the Monterey Bay tide pools collected and pressed by her grandmother, Mrs. Rebecca Day Esten. "Natural Wood Forms" are Juniper roots from the high Sierras gathered and prepared by Mrs. Cornelia Prins Chase of San Francisco during the past ten years. The "Art Directors Exhibition of Advertising Art"—9th Annual will open on May 25.

SPECIAL EVENTS: Include conducted tours of the Museum, classes in Art Enjoyment, the Painting Workshop for amateurs, seminars in the History of Art, and Children's Art classes. All classes are free of charge.

The Museum is open daily 10 a.m. to 5 p.m.

## AMERICAN ARCHITECTURE SHOWN NATIONAL GALLERY OF ART

The development of American architecture over the past century will be illustrated in a major photographic exhibition to be held May 15 to July 15 at the National Gallery of Art, Washington, D.C.

The opening of the exhibit, first large-scale architectural display and one of the largest contemporary ever held at the National Gallery will be open from May 15 to July 15, 1957.

Highlights of the exhibition will be 10 huge color transparencies which will embody trends and characteristics considered to be significant of future development of American Architecture. More than 200 black and white photographs will be shown of 65 buildings which represent important steps either historically or esthetically in the narration of architecture over the past century in America.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, announces the following schedule of special exhibits and events for this month:

EXHIBITS: The Ayala and Sam Zacks Collection, prepared by the staff of the Art Gallery of Toronto, this private collection of 127 items includes the works of Picasso, Renoir, Corot, Chagall, Derain and Leger. "Paintings from the Mazzon School, Milan, Italy"; "Art of the Bay Region" by Nell Sinton and William Brown; "Painting and Scultpure—Now", some contemporary statements by artists of the Bay Region; and "Theodore Roszak", a retrospective exhibition of paintings, graphics, constructions, and sculptures, organized by the Walker Art Center, Minneapolis, in collaboration with the Whitney Museum of American Art of New York.

SPECIAL EVENTS: Lecture Tours on current exhibitions each Sunday afternoon at 3 o'clock; Current exhibitions are discussed informally each Wednesday evening at 8:30 by a Museum Staff member and a short Gallery tour is conducted; Concerts and other special programs. Adventures in Drawing and Painting—Sketch Club and Painting Class; Studio Art for the Layman, and the Saturday morning Children's Classes.

The Museum is open daily.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., has announced the showing of the following exhibitions and events for the month of May:

EXHIBITS: "American Paintings, 1815-1865", consisting of 136 paintings from the celebrated M. and M. Karolik Collection in the Museum of Fine Arts, Boston, together with 14 paintings from the private collection Maxim Karolik brought to San Francisco under sponsorship of Patrons of Art and Music. "Treasures

from the Pierpont Morgan library", an exhibition of 108 superlative items drawn from the rich resources of this famous American institution and circulated among seven leading American museums in commemoration of the fiftieth anniversary of its founding. Included are medieval and renaissance illuminated manuscripts, incunabula, fine binding, literary manuscripts and master drawings. "Masters of British Painting, 1800-1950", an exhibition of 103 pictures comprising a brilliant survey of the last century and a half of British painting assembled from the notable public and private collections in the United Kingdom and this country by the Museum of Modern Art, New York, in collaboration with the City Art Museum of St. Louis and the California Palace of the Legion of Honor.

"Sculpture", by Ray Lorenzato, will open on May 25.

ACHENBACH FOUNDATION for GRAPHIC ARTS: Will show "Pomp and Circumstance" a group of prints commemorating Festivals, Corteges and Grand Ceremonies of past ages.

SPECIAL EVENTS: Include an Organ recital each Saturday and Sunday afternoon at 3 o'clock. Educational activities—Spring art classes for children, Saturday mornings at 10 o'clock. Classes and materials furnished free.

The Museum is open daily.

---

# SAN FRANCISCO MUSEUM OF ART

## WAR MEMORIAL BUILDING CIVIC CENTER

**PIETA**
(detail)

by
JEAN LAFITTLE

Self-taught contemporary sculptor
from Southern France.
Anonymous loan.

An example of religious art, personal and contemporary, but related to the romanesque tradition of the region.

COLORS PROVE HELP TO CHILDREN

# PSYCHOLOGICAL PAINTED SCHOOL

## IMPROVES PUPILS' PERFORMANCE

An interesting experiment was carried out in two-year studies by a team of phychologists at Johns Hopkins University. They tried to find out the influence of colors and paints on the behavior and the performance of young children in school.

The experiments were conducted in three Baltimore city elementary schools with the cooperation of the school officials. Among the psychologists who worked on the project were Dr. Wendell R. Garner, director; Dr. Randolph Haynes, Dr. James Bond, and Joseph Franklin.

### BRIGHT COLORS HAVE A DEFINITE EFFECT ON THE CHILD

The result was the discovery that bright colors and pleasing classroom designs have a definite effect on the way your child behaves at school and the marks he gets.

Three schools that needed painting were chosen for the experiments.

For one year complete scholastic and attitude reports were kept on all children. During the summer, following the first experimental year, one school was repainted according to the principles of color dynamics, psychologically developed to utilize the inherent energy in color.

The second school received a fresh conventional paint treatment, which in Baltimore schools is light buff walls and white ceilings.

The third school did not receive a new coat of paint and served as a scientific control standard.

The psychologically painted school had corridor walls in yellow with corridor doors and map boards in palace gray. Rooms with predominant northern exposure were painted in a pastel rose, while blues and greens were used in rooms facing south. Art class rooms received a neutral light gray treatment. Front walls were painted a darker shade of the predominant room colors.

Chalk boards were painted green to reduce glare and to lower the too-sharp contrast between the chalkboard and the adjoining wall. For two years in those experiments 20,000 report cards representing 2,500 different pupils were tabulated.

### IMPROVEMENTS IN THE PSYCHOLOGICALLY PAINTED SCHOOL

It was found that color has the greatest beneficial results on behavior and scholastic performance among **kindergarten** children. Children like bright, clean, exciting colors. Color is a dominating interest during their early years, more so than form. Greater improvement as a result of planned color was in scholastic achievement rather than behavior. In those experiments boys responded more to color than did the girls, while in studies by other observers it had been stated that girls generally are more sensitive to color than boys.

A study of the work, play and language performance of kindergarten children showed a 34% improvement between the first and second year in the psychologically painted school; 7% in the school painted with conventional color; and only 3% in the unpainted school.

Seven performance traits were studied for grades three through six. These included social habits, health and safety habits, work habits, language, arts, arithmetic, social studies and science, art and music. Here again the color environment school led with 9% improvement; the conventionally painted school showed only ½% improvement, while the unpainted school showed a 3% loss.

Both the students and the teachers in Baltimore were high in their praise of the colorful classrooms. 58% of the children said that the "nice colors" had made a difference in their attitude toward school. One child said: "My grades are much better. The bright rooms make me feel happier and so I can do my work better."

### A SOOTHING BLUE-GREEN IN CLASSROOMS

Collaboration of physicians, educators and color engineers has given new impulse to the decoration of nurseries and children's classrooms. A thoroughgoing school application of color psychology is now being applied in New York schools. The Board of Education, after extensive research, has decided to paint all classrooms a soothing blue-green and lunchrooms a mouth-watering peach color.

The formerly prevailing brown scheme is said to have had a depressing effect on the youngsters. This gloomy color is to go the way of the disciplinary ruler and the dunce cap. It will disappear. Wall colors and ceiling colors strongly influence the emotional responses of children and determine to a large extent whether pupils are tense or relaxed during school

(See page 33)

**"CHILDREN OF ALL NATIONS"**

**Stained glass windaw in the First Baptist Church, Redlands, California.**

AN OLD ART...

# STAINED GLASS

## MEETS MODERN CONSTRUCTION OPPORTUNITIES

**By ROBERT F. BRAMMER**

The membership of the Stained Glass Association of America is confronted today with problems of design unheard of during past years when the public demanded copies of architectural design and decoration.

The American architect has challenged, and artists and craftsmen of this nation have accepted the opportunity to create stained glass panels and mosaic murals for the new trends in architectural design. Contemporary architecture demands and must receive

**In Production:**
**CARTOONING PHASE**

**A full size drawing is being developed for the Clerestory Windows of the First Lutheran Church in Glendale, California.**

**The architecture is of contemporary design and won a Church Architectural Guild of America award for the office of Orr, Strange and Inslee, Architects of Los Angeles.**

**THE SKETCH:**

**The creating of the design is the first process. A sketch is made to 1-inch scale to convey an impression of the color and light of the full-size window. Shown is a sketch for window 18′ x 23′.**

the utmost of the artist's creative ability if the end result is to accomplish the ultimate in design, delineation and color.

Over the years many forms of architecture have been used to house the membership of a particular faith. Prior to construction, the architect and building committee have labored long hours over the problems of liturgical correctness, functionalism, and the appointments for the proposed new house of worship.

Too often the selection of glass color and texture is brushed aside, an afterthought by all concerned, because the quantity of seats, the choir arrangement, the kitchen and the lounges demand the immediate attention of the group involved in the future of the church. Later, when the contractor demands action be taken for the purchase of the glass, the suggestion that "amber glass is often used" sometimes results in an immediate note of approval.

Amber glass can be used effectively, but what kind of amber, yellow, bronze or green, and what kind of

**TRACING:**

**The facial features, lights and shadows are then intraduced ta the glass by the skilled use af a vitreaus paint by experienced worker.**

**PATTERNS:** **Three carban copies af each cartaan are made for use during the various processes. One copy is cut inta patterns and each pattern attached ta a plate glass easel with an adhesive. Glass calar and texture is then selected and cut inta pattern and attached.**

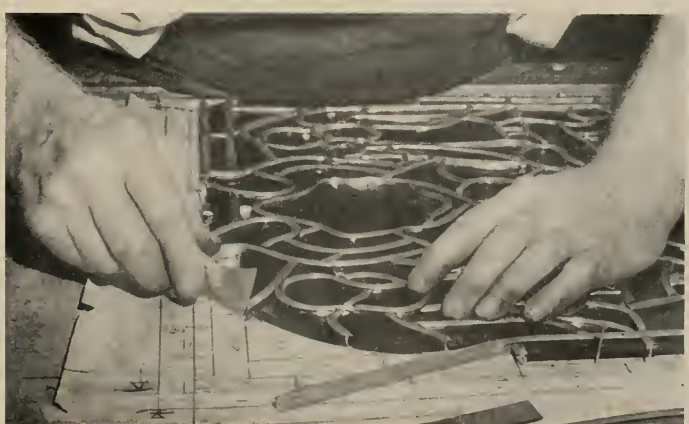
**GLASS CUTTING**

**FIRING:**

**After each piece of glass has been painted, it is placed in a kiln and heated to 1200 degrees F.**

texture? Some glass classified as amber casts an eerie, deadly light over a given area, changing the color of the walls, carpeting and floors, but most important the flesh and clothing of those seated within its range of light. Yellow is the most selfish color in the spectrum and the light coming through a yellow glass is emphasized, resulting in glare.

American glass blowers and manufacturers of rolled glass have developed and are continuing to create glass of varied thickness, texture and color, in keeping with current trends in architecture. The psychological effects of glass color cannot be duplicated by any other material. The wealth of textures and selection of glass colors, coupled with the cost comparison of



**GLAZING:**

**A glazier is shown assembling over a full size cartoon the many segments of glass and forming capital "H" shaped lead extrusions around each piece. When each has been encased in lead, the joints are then soldered. Cement is then forced under each lead for waterproofing and shock.**

**Reinforcing bars of steel are attached to the lead and the panel is then ready for installation.**

**INSTALLATION:**

**A section of the window shown being installed into a steel frame.**

**This window measures 4'0" x 25'0" and required a steel frame designed to the specifications of the Stained Glass Designer.**

other materials, challenges the production and creative ability of American glass manufacturers in both the rolled and hand blown industry. Cognizant of the problems involved when large areas of glass are used, grayed tones of color are being specified by the stained glass craftsmen, eliminating problems of glare, heat, etc., common to glass of former years.

The substance called glass was known and used some 5000 years ago, but it was not until the third or fourth century that it began to be used in window form. The Arab used translucent glass set in plaster to form a design and to give the effect, when placed against light, of sparkling jewels. Today's architect uses glass in the same manner for all types of buildings. Currently it

**COMBINATION STONE AND GLASS MOSAIC**

**Sometimes stone and glass are combined to accomplish the desired results, as in this Lunette over the main entrance of the**

**SERBIAN ORTHODOX CHURCH**

**Alhambra, Calif.**

**Quentin and Westberg, Architects.**

is also used for functional purposes to highlight areas, to lend soft neutral color to interiors, and to accomplish the comfortable psychological effects in and for the building and its occupants.

Leaded patterns can be particularly appealing for strength of design and a point of interest. Glass or marble mosiac for interior or exterior design can accomplish design effects impossible by the use of any other materials. The building boom in progress throughout the world, the use of air conditioning, eliminating the use of open windows, and the desire for soft, functional light in both large and small areas give unlimited opportunities for the use of stained glass in many forms. Glass, light, and color are truly synonymous with modern artistic expression, techniques, and architectural designs.

No other form of art has been discovered which will duplicate the psychological effect or teaching value of a stained glass leaded window for the Church. In Europe, for over 800 years, people have had the pleasure of viewing stained glass art in the birthplace of the craft. Today throughout our nation, while not of such ancient vintage, people of all faiths worship the under the spell of stained glass color and art of the finest quality of craftsmanship.

The current spiritual renaissance in religion throughout the United States of America has created a demand for church building unequaled in world history. The

**AN OUTSTANDING EXAMPLE of the use of stained glass is this "ROSE WINDOW" in the Bishop's School for Girls, La Jolla, California.**

**Window from "LIFE OF CHRIST" series of windows in the St. Barnabas Church, Eagle Rock, California.**

**"BAPTISTRY WINDOW," St. Alban's Church Westwood, California**

stained glass craftsmen, conscious of the varied atmospheric conditions governed by geographic location, must of necessity study each locale and condition before attempting to develop a design in keeping with the theology expressed by his client and the architecture of the new building. Catalogues and brochures of stainless glass designs cannot answer the questions of clients but with modern modes of transportation a client is as close to the stained glass craftsman of his choice as he is to his telephone.

American craftsmanship and design ability, in one of the oldest mediums of expression, is unequaled on a world-wide basis. Much of this credit can be given to the enthusiasm, imagination, and acceptance of American architects to the use of glass.

## A WESTERN INDUSTRY

With such a tremendous historical background, and modern architectural trends towards use of stained glass in commercial, industrial and residential construction, as well as the generally accepted Church use, let's consider the "interior" of a stained glass manufacturer to determine just what goes into the glass we see.

Among manufacturers of the West, is the Judson Studios in Southern California, designers and craftsmen observing their Sixtieth Anniversary this year, and an ideal plant to visit if you want to see what makes the stained glass industry tick.

The approach to The Studios is a revelation of the cultural heritage of the neighborhood. Its location is within two hundred yards of the busy Pasadena Freeway but you do not hear any of the mechanical noises. Sun dials and a fish pond in the lawn, hand made brick with the imprint of the maker's thumb in the patio, the architecture of the building—I defy anyone to describe it in one or two words, but here was born the School of Fine Arts and Architecture of the University of Southern California. William Lees Judson was responsible for its birth as well as that of four sons, two of whom organized The Judson Studios in 1897.

Since the organization's birthdate, the Studios have gained international fame as artists and master craftsmen in what is perhaps the oldest craft dedicated to religious expression.

**"LIFE OF CHRIST"**

**Series of windows for the Evangelical United Brethren Church, Anaheim, California.**

**Orr, Strange and Inslee, Architects.**

The Studios were first located in what was known as Mott Alley, a junction of the Plaza in Los Angeles. Later it was moved to 7th and Grand Avenues. When the University decided to centralize its growing schools to the present location, The Studios moved into the building that has become so much a part of its success.

The entrance to The Studios is a story within itself, because once you close the door, you are in another world. Here men work with their heads, hearts and hands. No massive mechanical calculators or heavy duty machinery can improve or speed the creation of a Stained Glass Window. The study and prayerful consideration of each religious theme can and does produce the utmost of a man's creative ability. These are reflected in the sketches, full size cartoons, selection of glass color, the powdered glass painting techniques, the glazing, cementing, reinforcing with steel bars and finally the installation of each window. It takes labor—yes, but it's a labor of love.

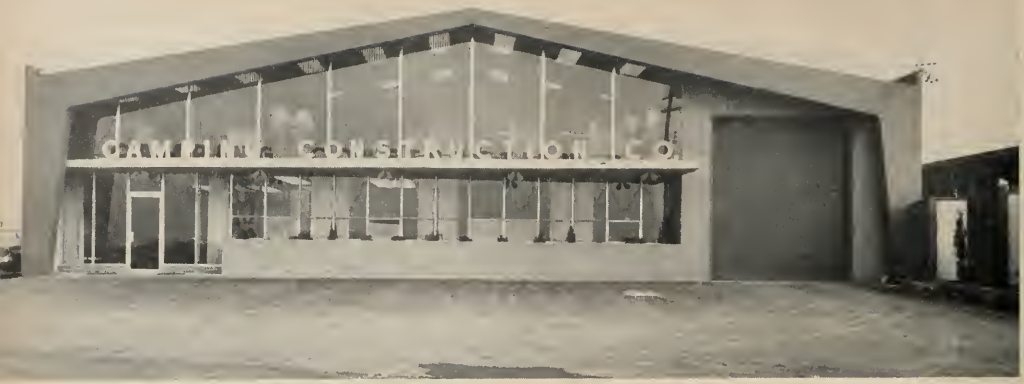
Watch the artists creating, in one inch scale, a sketch for a window to be placed in a church in Seoul, Korea, another developing a large sketch for a triple lancet window to be installed in the National Cathedral in Washington, D.C., still another sketch, this in a contemporary form, to be placed in a cemetery chapel. Each will represent a memorial, the first for the church in Korea because it is just beginning its ministry, its former house was destroyed during the war. Certainly not the first for the Cathedral in Washing-

(See page 23)

**"RESURRECTION"—A mosaic on the Gospel side of the church chancel. St. Paul's On The Highway, Burlingame, California.**

**FIRST PRESBYTERIAN CHURCH of San Bernordino, California. This church won a Church Architectural Guild of America Award, and is an outstanding example of modern use of stained glass in today's architectural designing.**

**Culver Heaton, Pasadena, Architect.**



# CAMPING CONSTRUCTION COMPANY

OAKLAND, CALIFORNIA

Camping Construction Company has moved into its new concrete building at 290 Hegenberger Road, Oakland.

Ground floor offices and departments include a reception area, offices, purchasing, bookkeeping, estimating, utility rooms, and a subcontractors' plan room, and a conference room with provisions for showing color slides and movies. The second story is devoted to engineering and design functions.

The entry floor is quarry tile, others asphalt tile; one office has wall to wall carpeting over mat on concrete; warehouse area the bare slab is exposed. For the second floor a 55′6″ x 28′ slab was cast on the ground and raised into position on pipe columns. Load bearing walls are split face colored concrete blocks. Monolithic reinforced cantilever stairway, poured in position, connects the two floors.

Wall treatments include split face colored concrete block, painted sheet rock, mahogany and walnut paneling, and one wall on second floor is industrial freezer cork facing. Ceilings are of newly developed acoustical tile with drop panel slim line lighting.

Warehouse floor is a 75′ x 100′ concrete floor slab, 4″ thick, reinforced with 6″ x 6″ x 10 ga. x 10 ga. steel mesh, capable of bearing 2,000 lbs. per sq. ft. To keep floor free of obstruction, 8 reinforced 3-hinge pre-cast concrete arches (75′ clear span) 23′ high at the peak of the arch were raised. Arches are joined by job-cast, tilt slab reinforced concrete wall sections 17′ high and varying from 15′ to 20′ wide.

**TOP VIEW: Shows front of building, general offices on ground floor, engineering on second; CENTER VIEW, Engineering section; LOWER VIEW, Entry and reception area.**

## THE NEW LOOK

The Duncommon Street Plant of the Southern California Gas Company, one of the more important inhabitants of the region just east of downtown Los Angeles, has just acquired a handsome new porcelain enamel top-coat.

Some 9,000 square feet of it — comprising 1,200 panels, plus an additional 7,000 square feet of fluted panels in the same design, fashioned of paint-grip steel and adorned with two coats of primer, affixed to inner walls not visible from the street.

The panels, three tiers of them, are firmly fixed to the horizontal girts by concealed fasteners on the backs of the panels. At both vertical and horizontal overlaps the panels are thoroughly caulked insuring complete water-tightness.

Drips and copings, also porcelain enameled, are an integral part of the installation.

Remodeling of the gas company plant, located at 410 Center Street, was supervised by Austin Field & Fry, architects. Guy T. Martin & Company did the engineering.

**DUNCOMMON STREET plant of the Southern California Gas Company with porcelain enamel planels, specially fabricated for the job.**

**Panels are being erected. Bottom tier is shown, twa mare tiers were subsequently affixed, fastened to the horizontal girts by concealed fasteners.**

*Photos by California Metal Enameling Company*

**UNUSUAL DESIGN** of slanted windows.

NEW FISHERMAN'S WHARF

# FRANCISCAN RESTAURANT

SAN FRANCISCO, CALIFORNIA

HEWITT G. WELLS,
ARCHITECT

GOULD and DEGENKOLB,
STRUCTURAL ENGINEERS

CHARLES O. JONES,
GENERAL CONTRACTOR

San Francisco, home of famous restaurants, has added another to its long list of specialty eating places. This one is not only outstanding from a culinary standpoint, but architecturally and structurally.

FIRST the view: Restaurant patrons at the Franciscan Restaurant, on famed Fisherman's Wharf have a 270 degree view of the Bay and surrounding San Francisco.

SECOND, the restaurant is the first steel framed structure to be constructed on a wharf, and above water.

In an effort to give a complete expression of lightness in the entire structure, San Francisco Architect Hewitt C. Wells specified structural steel framing to give vertical support to the two story structure. A unique core, where the restaurant kitchen is located,

utilizes diaphram walls for lateral support. Structural Engineers Gould and Degenkolb, also of San Francisco, designed the structural steel and framing elements. All steelwork was left exposed save supporting steel floor beams.

An impression of rigidity is gained entirely through the light steel members, painted a strong turquoise color, accenting the exposed steel.

Bays were 17.6 feet apart with spans of second floor beams varying from 15′-3″ to 20′-3″ with 4′-0″ cantelevers. Roof spans varied from 31 feet to 39 feet with 6 foot cantelevers; and eight inch wide flange columns were bolted to foundation plates embedded in a concrete mat. The foundation is seated on new wood piling, with the existing wharf used as a form for the ground floor slab.

Roof supporting members and floor beams were composed of 14 inch wide flange sections, weighing from 30 to 61 pounds to the foot. In erecting the steel framework, bolts were used to hold the steel members in position prior to welding; then the bolts were removed and the holes filled by welding. Thus, the exposed steel was given a smooth uninterrupted surface.

Exposed steel design was also carried out in a floating stairway, connecting the ground floor glass enclosed entrance to the upstairs dining area.

This stairway is composed of two 12 inch boxed steel channels built up with 12 inch wide cover plates,

(See page 23)

**FLOATING STAIRWAY connects second floor dining area with glass enclosed foyer.**

**BELOW: Steel beams spanning 40 ft. of open space permit unlimited view for patrons seated in three-tier levels.**

**Artist's Conception**

**Panoramic profile view of tramway being constructed in Grand Canyon of the Colorado River.**

# BUILDING AN AERIAL CABLEWAY

## AT THE GRAND CANYON OF THE COLORADO

GRAND CANYON, ARIZONA

What veteran steelmen describe as the most arduous job of its kind they have tackled in some 40 years of building aerial cableways is nearing completion where US Steel's Consolidated Western Steel Division is building the longest single span, reversible-type, freight tramway in the world and when completed this month will run from the top of the precipitous south rim of the Grand Canyon to the northerly side for a span of about 1½ miles.

The project was built for the New Pacific Coal and Oils, Ltd., of Toronto, Canada, which will use the tramway to transport prehistoric bat guano from 60,000,000-year-old Bat Cave, a cavernous opening of unexplored labyrinths, about 600 feet above the Colorado River on the north canyon wall, a difference in elevation of the tramway span of 2911 feet.

While only 1000 feet of Bat Cave have been explored, Charles Parker, President of United States Guano Corporation, a wholly owned subsidiary of New Pacific which will mine and market the highly nitrogenous product as a concentrated fertilizer, estimates more than 100,000 tons of bat guano are deposited in the explored portion. As fertilizer and as a source for the ingredients of modern medicine the huge deposit is worth at least $10,000,000 Parker said.

"The guano was deposited aeons ago by prehistoric bats which are believed to have occupied the cave for hundreds of thousands of years," Parker declared. "Because of the year-round constant temperature of about 70 degrees and a lack of measureable humidity within the cave, the guano has retained much of its chemical properties. These run 10 to 16 per cent nitrogen, with considerable phosphate and potash content."

"Bat Cave is the only guano deposit of its kind in North America of commercial significance," he added, "and the only one being operated at this time."

Parker, who lives in Grand Junction, Colorado, said there are no bats occupying the cave now, but the winged creatures lived in its cavernous depths for hundreds of thousands of years. Scientists estimate the cave has existed for 60 million years.

Designed by Green, the ⅛-inch reel operates some-

**HELICOPTER TAKES OFF**

**From top of south rim on cable-laying flight which takes twirly-bird to bottom of canyon 1½ miles away and 2911 feet below starting point.**

**Cable can be seen unwinding from reel between runners. Man holds end of cable to detect any fault in unwinding.**

**Axe man stands by to cut cable if it should become fouled. Flight was made without incident.**

what like a spinner on a fishing rod. The five-foot reel consisted of a tapered inner cone upon which 11,500 feet of aviation cable were wound. The inner cone was secured within a conical steel cylinder with a two-inch opening at the trailing end through which the cable unwound.

The cable reel assembly was fixed to the helicopter's runners, with a specially designed trigger mechanism installed to enable Green to jettison the cable reel, if necessary.

Only hitch in the copter cable laying operation came after Green had released the cable at the end of his run. Attempting to "play" the cable to determine it wasn't fouled on rocks, Farwell discovered it was snagged on a crag on the rim side of the river. By walkie-talkie he contacted a ground crewman at the floor of the canyon who paddled across the stream in a collapsible boat. There he was picked up by the helicopter and carried about 500 feet up the rocky side of the north rim to free the cable.

**SECONDS AFTER TAKE-OFF pilot speeds down tramway route laying cable. . . . Cave opening may be seen about 600 ft. above river on canyon's northeasterly side in mid-picture, right.**

Bat Cave, which is located about 25 miles upstream from Pierce's Ferry, was discovered in the early thirties shortly after Hoover Dam was completed. According to local legend, the discoverer was a young lad who was boating on Lake Mead which in those days extended more than 100 miles above the dam. The youngster staked a discovery claim which he later sold for $50.

Bat Cave had several owners before New Pacific acquired it in 1955. Previous operators' attempts to remove guano by barge were unsuccessful because of the Colorado River's treacerous currents and sand bars. Recent owners tried flying guano out of the canyon by helicopter and airplane, but these methods proved too costly.

The explored sections of the cave have rooms measuring 300 feet wide, 100 feet high and 500 feet long. The cave opening is 30 feet by 30 feet.

The draft is outcast from the cave, so it is believed it has another opening, and exploration of the cave hasn't been completed, because guano deposits are so heavy in spots that a man can not get through.

Stanley (Lefty) Farwell, construction superintendent, described the tramway project as a "turn-key" operation in that Consolidated Western is building the aerial carrier in its entirety—from drawing board to completion.

The rugged former Loyola of Los Angeles University and professional football player had one of the most difficult phases of construction on record when he completed the spectacular stringing by helicopter of approximately 11,500 feet of 1/8-inch construction cable, the first of four cables which to be drawn across the 2911-foot-deep gorge before the permanent 1½-inch track cable was suspended from three giant steel towers which support the tramway cable over its 9400-foot route from loading to discharge terminals.

"We considered using weather balloons, airplanes, rockets and blimps before deciding on the helicopter to string the construction cable," Farwell, of Los Angeles, stated.

To prepare for the cable stringing operation, Kern Copters, Inc., one of the nation's first commercial whirlybird operators, made several experimental dry runs to lay cable along the runways at a conventional airport.

"After a couple of runs we were sure our reel would play out the cable without fouling," said Charles E. Green, Jr., 36-year-old ex-Marine copter pilot of Santa Ana, California. "Then all we had to do was to pick a quiet morning when the tricky canyon air currents were at a minimum and take off."

Farwell described the helicopter cable-laying run as rapid, spectacular and one of the most unique operations he has witnessed in 18 years of steelworking.

Green lifted the twirlybird from a specially-built platform on the south rim of the canyon and sped down the tramway route leading over precipitous cliffs and across the half-mile wide Colorado River to the canyon floor below Bat Cave.

There he dropped the end of the cable which ground crews immediately secured to an air hoist-powered drum by which the construction cable was drawn across the canyon after the other end had been spliced to a 3/8-inch cable. This and succeeding cables were drawn across until the tramway cable was strung. The entire cable-stringing operation took about a month.

The cave contains guano in both pellet and talc forms. The powdered substance will be picked up by vacuum and carried about 1000 feet through a 10-inch pipe to a bag house where air and guano are separated. The guano then will drop into loading bins of the lower tramway terminal, whence diverted into the tramway bucket designed for a maximum load of 3500 pounds.

Perhaps the best informed authority on Bat Cave history since its discovery is Earl (Buzz) Westcott, 41-year-old flight service operator at Kingman Airport, about 60 miles from the site. Westcott estimates he's made some 3000 flights to the floor of the canyon as a contract pilot for various Bat Cave owners.

Since there is no road or trail to the bottom of the canyon at this point, Westcot has flown in all equipment, personnel and supplies used on the tramway job since it was begun last August.

Westcott said he has flown in about 200 tons of equipment for the tramway operation. Material air lifted to the canyon's floor included 30 tons of steel, 171,000 pounds of sand, gravel and cement for the tower foundations; two air compressors, hoists, welding machines, cement mixers and a two-ton caterpillar. All equipment was disassembled at Kingman Airport, flown to the canyon floor piece by piece and reassembled.

Getting it out will be easy, Farwell grinned. "We'll just load it aboard the tramway and haul it up."

Claire C. Beatty, Consolidated Western engineer who designed the tramway, described the Grand Canyon operation as perhaps the most unusual and difficult project he has worked on in his 38 years with U. S. Steel, during which he has helped design some 150 tramways all over the world.

"The inaccessibility of the site made the project particularly arduous," Beatty pointed out. "This job was not only a challenge from a designing and construction standpoint, but also from a logistics angle. Since there is no way in or out of this section of the canyon by trail, everything, from steel to toothpaste, had to be flown in."

During the long months on the job, men on the floor of the canyon worked in a temperature spread of about 100 degrees, ranging from 130 degrees in summer to below freezing in winter.

Tools literally became too hot to handle in summer, and had to be sloshed in the Colorado River to cool them off, according to Bill Davidson, 34-year-old helicopter pilot, who flew guano out of the canyon for a time in 1954.

"I flew the Hump in World War II, and while it got hot in India, we never had temperatures like this. Humidity on the floor of the canyon registers absolute zero, July through September. Wild life, too, gave us some interesting times. In summer we placed the legs of our cots in kerosene to keep the scorpions from crawling up. Mountain lions made several nocturnal visits to the camp. Rattlers were commonplace, but fortunately no one was bitten."

## AN OLD ART—
## STAINED GLASS

(From page 15)

ton, D.C., it began its ministry some fifty years ago but these new windows will light the beginning of the nave portion of the structure. The sketch for the cemetery chapel is non-denominational in theme but descriptive of a happy, loving experience, common to most family life.

The creation of full size cartoons depicting the artist's interpretation of the one inch scale sketches is a fascinating procedure. Here one can see a six foot figure of a Biblical character being developed for a Gothic stone frame. Another would be a series of figures seven to ten inches high which tell an incident from the Bible, these were for a small section of a large window which, when completed, would pictorally explain the Nicene Creed. Another was a large circle window which framed a theme taken from the Old Testament.

If you have not seen the method used for coloring a Stained Glass Window, you are due for a surprise. The Stained Glass Studio buys sheets of colored glass from England, Europe, and the United States. Most of it being hand blown and called Pot Metal Antique. The color is in the glass and is the result of the addition of metallic oxides to the pot of molten glass. For example, gold is required to make the rich ruby glass, cobalt for the deep blue tones, etc. Many of the sheets of glass will vary from $\frac{1}{8}$" to $\frac{5}{8}$" in thickness; the depth of color will be graded accordingly. Color is not added to the glass but a powdered glass is used to introduce trace lines, facial features, light and shadows, etc. The latter is accomplished by artists known in the trade as Glass Painters. These gifted craftsmen have the all important job of interpreting and transferring the theme and design from both the original sketch and full size cartoon to the glass itself. Each glass segment is fired in a kiln at approximately 1200°. Each piece of glass is held together by using a capital "H" shape lead extrusion. The Judson Studios have their own patented dies and the extrusions are made to their specification.

It was interesting to learn how those extremely large windows are engineered. They are designed in sections, appropriate in dimension and shape to support the weight of the glass and lead. So the Stained Glass Artist must also be schooled in problems of engineering such as weight and stress plus light and ventilation conditions. Some of the windows are installed in frames of wood, aluminum, steel, concrete and stone, each requiring a specific method of installation.

How much does a window cost? This is dependent upon a number of factors, the intricacy and type of design, the location of the window, are there to be a quantity of duplicate designs, the type and design of the frame? Each question governs the cost of one or a number of windows.

Why should a church buy a stained glass window or windows? If for no other reason than to use them for the psychology of color and its accomplishments. Windows using symbols or figures to tell a story, teach and preach seven days and nights a week with a constancy and power that cannot be ignored. Many have done this for over seven hundred years and it would be difficult to place a replacement cost upon them in today's market and impossible to place a value upon the results of their teaching.

I will never again look at a Stained Glass Window without remembering "My Dollar Tour" and I'm positive I will go out of my way to see examples of light, color and form, which give further cause for me to lift my eyes, heart and hands to Him, the Creator of all things.

Visual education, spiritual awareness, psychological comfort . . . these add up to the value of using stained glass.

## FRANCISCAN RESTAURANT

(From page 19)

5/16 of an inch thick, welded to both top and bottom surfaces of the opposing channels. Specially cut Douglas fir treads are supported by curved 5/16 inch steel plates, eight inches wide and 6 feet 6 inches long. A handrail bar is connected to both ends of the tread plate. The floating stairway spans 27 feet and is tied in to a 14 inch wide flange header beam across the upstairs opening.

By using steel framing, the interior dining area permits seating of 192 patrons on three levels, affording each a view through the almost completely glass enclosed upper floor of the restaurant.

Lighting is designed to take full effect of view potential at night. Pinpoint down lights are employed to avoid reflections of the sloped glass surface of the prow-shaped windows, providing maximum view and little distortion.

Planking and mineral fiber acoustic tile are used to decorate the interior.

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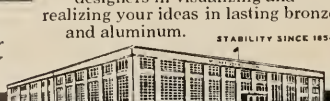


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## SAN FRANCISCO ARCHITECTURAL CLUB

Isadore Thompson, engineer, was the principal speaker at the May meeting, discussing work from Austria to Okinawa and Alaska to Mexico featuring precast bents and concrete arches, multiple story frame buildings, long span precast concrete barrel arch roofs, and numerous types of structures.

Plans were completed for a tour of the Pabco Plant in Emeryville on the 17th of May, and final announcement made for the Annual Dinner Dance to be held May 25th in the Garden Room, Claremont Hotel, Berkeley.

## ARCHITECTS AND ENGINEERS COMMITTEE FOR CALIFORNIA

Henry L. Wright, F.A.I.A., Los Angeles, has been named first chairman of the Architects and Engineers Conference Committee of California; Wesley T. Hayes, Structural Engineer of San Francisco was chosen vice chairman of the Committee.

Organization of the joint committee "is a milestone in the traditionally close relationship between the architectural and engineering professions in California," declared Chairman Wright, who represents the California Council, A.I.A. on the committee. Hayes is the representative of the Structural Engineers Association of California. Other members of the Commit-

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tee include: Walter S. Stromquist, Architect, Palo Alto; William W. Moore, San Francisco representing the Consulting Engineers Association of California; together with Raymond D. Spencer of Los Angeles, and Pecos H. Calahan of San Francisco; Wesley T. Hayes, San Francisco and William T. Wheeler of Los Angeles representing the Structural Engineers Association; and Leo Ruth of San Jose, Albert Daniels of San Diego, and William A. White of Sacramento, representing the California Council of Civil Engineers and Land Surveyors.

## SAN DIEGO CHAPTER

James L. Julian of the San Diego State College spoke at the May meeting in the Chevagnac Room of the Lafayette Hotel, on the subject "How Public Relations Can Help Architects Build for the Future."

The annual Council Spring Outing, sponsored by the Producers Council, was held May 22 at the Singing Hills Golf Club, featuring sports entertainment and a dinner.

Newest members to the Chapter include: Herbert H. Hotaling, Howard Braden, John S. Knight, Junior Associates; and Alfonso Mack, Associate Member.

## OREGON CHAPTER

Irving G. Smith, F.A.I.A. President and members of the Oregon State Board of Architectural Examiners conducted a seminar at a recent Chapter meeting on "Problems which confront the Board in carrying out the administration of the law, and which materially affect the architectural profession." The seminar was of extreme value to the architects in determining a means and advisability of changes to the Oregon laws which might strengthen their application and

(See page 30)

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Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Walter L. Dickey, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

C. M. Herd, President (Sacramento); L. F. Greene, Vice-President (Sacramento); J. F. Meeham, Secy.-Treas. Directors: C. M. Herd, L. F. Greene, L. G. Amundsen, W. A. Buehler, R. W. Hutchinson. Office of Secy., 68 Aiken Way, Sacramento.

American Society of Civil Engineers Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy.-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

The May meeting in the Engineers Club, San Francisco, was a "students" meeting for the purpose of acquainting senior and graduate engineering students with the structural engineers of Northern California. Approximately 40 students and a number of faculty members from the University of California and Stanford University were present.

The business session comprised reports from both students and faculty on research projects of importance to the structural engineering profession.

The annual meeting of the Speakers Club was observed May 24, with awarding of the William Hoff Popert Perpetual Trophy, with Bob McLaughlin and Brian Lewis serving as co-chairmen of the event.

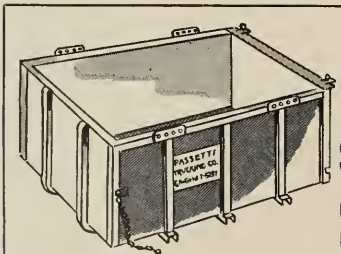
Recent new members include: Lawrence H. Daniels, Roland L. Sharpe, George D. Siegfried and Grant B. Thoreson.

## SOCIETY OF AMERICAN MILITARY ENGINEERS—SAN FRANCISCO POST

Colonel Edwin M. Eads, Air Force Installations Representative, South Pacific Region, has been awarded the Newman Medal for 1956. This medal is awarded annually by the Society of American Military Engineers to a US Air Force military or civilian engineer in recognition of the most outstanding achievement during the year in design, construction, administration, research and development connected with military engineering.

The award was given to Colonel Eads for his work "In performing the surveillance of all Air Force design and construction in his Region" which includes the states of California, Arizona, Utah and Nevada.

Colonel Eads is First Vice-President of the San Francisco Post, Society of American Military Engineers, member of the American Society of Civil Engineers, and is a graduate of the Agricultural and Mechanical College of Texas.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## FEMINEERS—SAN FRANCISCO

The 7th Anniversary Luncheon of the FEMINEERS was observed this month at the Orinda Country Club, with members featuring birthday table centerpieces under direction of Mrs. C. Russ Graff of Danville.

Hostesses for the day were Mesdames Will Adrian, George R. Burr, A. C. Horner, Alfred Sperry and T. D. Wosser, Jr.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—SAN FRANCISCO

The Honorable George Dewey Clyde, Governor of the State of Utah was the guest speaker at a recent meeting of the Society, together with Mayor George Christopher of San Francisco. Governor Clyde is a practicing civil engineer and member of the ASCE and spoke on the subject "An Engineer Looks at the Future."

## AMERICAN SOCIETY OF CIVIL ENGINEERS—SAN FRANCISCO

Final meeting, before summer vacations, will be the Annual Field Day on June 14th at the Riviera Coun-

Barbara Counties Branch, Robert L. Ryun, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Association
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy., c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Cdr. Wm. J. Valentine, USN, President; Col. Edwin M. Eads, USAF, 1st Vice-President; C. R. Graff, 2nd Vice-President; Joseph D. Boitano, Jr., Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA, Donald McCall, Capt. A. P. Gardiner, USN, C. Grant Austin and Rex A. Daddisman. Office of Secy. c/o District Public Works Office, 12th Naval District, San Bruno, California.

try Club in Pacific Palisades.

Program for the day comprises golf, baseball, cocktail hour, entertainment and dinner. Regular meetings of all Sections will be resumed in the fall.

## STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA

George Guibert, Chairman of the 1957 Annual Convention scheduled for October 31 - November 1-2 at del Coronado, announces that plans are being made to make this year's meeting one of the most interesting of all conventions. Educational discussions and fun will feature the three days.

## AMERICAN SOCIETY OF CIVIL ENGINEERS

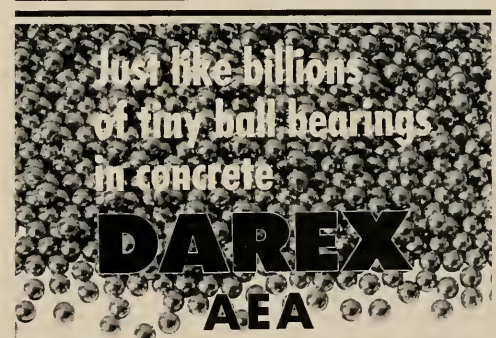
Robert K. Lockwood has been promoted to Assistant to the Executive Secretary William H. Wisely, New York, according to an announcement. His promotion comes in an expansion of the staff, and his work will include responsibility for coordinating the Society's activities in the Department of Conditions of Practice.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

R. W. Binder, for the special seismic committee of the association which has been asked by the Los Angeles Department of Building and Safety to review the present status of seismic design and recommend new design criteria, discussed the proposed new seismic code recommendations for skyscraper buildings in Los Angeles.

A highlight of the recommendations is a revised lateral force formula which may be applied to buildings of any height and will not, in general, result in changes to design requirements of buildings 13 stories or less in height. This proposed formula has the advantage of permitting a smooth transition from the old formula to the new one without necessitating any change in general to present buildings.

A feature of the committee's report is the recommendation that the design of very tall buildings be such that torsion forces resulting from lateral loads be held to a minimum. This means that much more symmetry may be required with relation to the center of gravity and center of rigidity. Binder noted that consideration is also being given to the establishment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of a five-man review board composed of prominent structural engineers who may be called upon to review the design of skyscrapers which might be termed unusual and for which rigid code requirements cannot be established. The purpose of this is to permit greater flexibility of design and at the same time maintain a workable code.

A revised method of computing overturning moments also occupies a portion o fthe committee's recommendations. It was pointed out that research has indicated that the seismic coefficient with respect to moment is not the same as the coefficient with respect to shear, and the proposed revision will take this difference into account. This revision will establish the method of determining overturning moments and will standardize design procedure to a certain extent.

Clarence Derrick announced that the Seismological Society of America will soon publish several papers concerning the interaction of ground and building during an earthquake. It was noted that the forces to which a building will be subjected during an earthquake depend to a considerable extent not only on the type of foundation material under the building, but also on the dimensions and orientation of the building with respect to the ground shock waves. It wats the opinion of the committee that this complex problem required further research and study before it could be successfully stated as a code requirement.

The second part of the meeting was devoted to the subject of suspension bridges. Charles Orr, the district engineer of U. S. Steel, presented a film made by the American Bridge Company which dealt with the construction of the Paseo Bridge over the Missouri River and the Delaware Memorial Bridge over the Delaware River. Frank Enn Earl, who is in charge of the erection of the Carquitos Straits Bridge, made several interesting comments about the construction of this bridge, pointing out that this is the first suspension bridge to utilize welded members and high tensile bolted connections.

## VINTON W. BACON HONORED BY SOCIETY OF CIVIL ENGINEERS

"In recognition of achievements in applied research on waste paper reclamation, pollution and water quality," Vinton W. Bacon of Tacoma, Washington, former Executive Officer of the California State Water Pollution Control Board, was honored as one of three winners of the 1956 Research Prizes of the American Society of Civil Engineers. Presentation of the award was made at Walla Walla by Mason G. Lockwood of Houston, Texas, national president of ASCE, during the recent annual Pacific Northwest Council Conference.

Other winners, who received their awards at the February ASCE national convention in Jackson, Miss., were Fred Burggraf of Washington, D.C., and Professor Chester P. Siess, University of Illinois at Urbana.

Bacon's research was sponsored by the California State Water Pollution Control Board and occupied seven years. An objective was to determine conditions under which wastes could be discharged without pollution danger.

## ARCHITECT JOHN CARL WARNECKE AWARDED ARNOLD W. BRUNNER PRIZE

John Carl Warnecke, AIA, Architect of San Francisco, who designed, among many other things, the trailer of the Crown Prince of Saudi Arabia, has been named to receive the $1000 Arnold W. Brunner Prize in Architecture of the National Institute of Arts and Letters, it has been announced by Malcolm Cowley, president. The prize and a citation will be conferred on Warnecke by Ralph Walker of the Institute at the Joint Annual Ceremonial of the National Institute and the American Academy of Arts and Letters on May 22 in New York. The Brunner Prize was established under a fund bequeathed to the Institute by Emma Beatrice Brunner, the widow of Arnold W. Brunner, a noted architect of New York, who served many years as Treasurer of the Institute.

**JOHN CARL WARNECKE**
**AIA Architect**

Warnecke has received wide acclaim from both architectural and educational groups for the school and college buildings he has designed. He has also done outstanding work in designing hotels, public libraries, industrial buildings and private residences. After several years at the head of his own firm he has joined with his father in the firm of C. I. Warnecke and J. C. Warnecke, with offices in San Francisco.

## JONES AND BECKMAN WIN AIA JOURNALISM AWARDS

Cranston Jones of Time Magazine and Frank Beckman of the Detroit Free Press, are 1957 winners of twin $500 first prizes in The American Institute of Architects' 4th Annual Journalism Awards Competition. Jones' cover story on architect Eero Saarinen was best in the magazine category and Beckman's "Mecca of Design", describing Detroit's architectural progress won first in the newspaper class.

The awards program was established in 1953 to recognize and encourage writing that will further public understanding of architecture and the architect.

### SEWER CONTRACTORS ELECT OFFICERS

Martin Kordick, Arcadia, succeeds Luka Pecel as president of the Associated Sewer Contractors, Inc. of Southern California, the organization representing the sewer and storm drain contracting industry.

Other officers elected to serve during the ensuing year include: Charles Burch of El Monte, first vice president; Donald Colich, second vice-president; Stewart Wattson, North Hollywood, secretary, and Charles Dorfman, treasurer.

### ARCHITECT SELECTED

Architect Harry T. MacDonald has been commissioned by the Downey Union High School District, Downey, to design a new administrative headquarters for the district, according to Melvin F. Quigly, president of the board of trustees.

The work will comprise warehouse facilities, maintenance department and school bus storage, also general office space. Construction will be 2 story and contain approximately 7500 sq. ft. in area.

### ARCHITECT SPEAKER AT UCLA LECTURES

Charles Luckman of Pereira & Luckman, architects and engineers, Los Angeles, was a recent speaker at the UCLA current lecture forum series on the subject "Organizing to Manage."

The series of lectures, open to the public without charge, is given in the university's business administration building with John C. Scheib, Jr., assistant professor in production management at the university serving as chairman.

### DICK HUGHES NEW NAHB CHAIRMAN CENTER BOARD

R. G. "Dick" Hughes, one of the eleven founder-directors of the National Housing Center, Washington, D. C., has been elected Chairman of the Board of Directors of the Center.

The Pampa, Texas, builder played a major role in the planning of the eight-story structure which now stands in the nation's capital as the nerve center of the home building industry.

### DRYWALL INDUSTRY DIRECTORS MEET

The first board of directors meeting of the International Drywall Contractors Association was held in Las Vegas, Nevada, recently attended by representatives of leading manufacturers, principal committee members, and labor leaders.

Wayne Vaughan of Los Angeles is president, with Melvin L. Scott of Seattle; M. R. McColley of San Diego; Gordon Hendrickson of Spokane, Washington; Max O. Jensen, Salt Lake City, Utah; H. A. Olson of Campbell, Thomas B. Price of Hayward, and Sherman M. Sitz of Los Angeles, western members of the Board.

Committees on finance, membership, convention and specifications met with the directors.

### ENGINEERING RESEARCH LABORATORY ADDITIONS

Nelson S. Perkins, Technical Director, Douglas Fir Plywood Association, Tacoma, Washington, recently announced the appointment of four new positions on the staff of the association's Engineering-Research Laboratory.

Appointments include DeForest Matteson, editor of the association's bulletins and other publications; Daniel H. Brown, engineer-analyst; Joseph L. Leitzinger, technical information specialist, and Walter Boyden, testing engineer.

The move is part of a major expansion of the engineering research services performed by the laboratory under the direction of David Countryman, chief, Engineering Research.

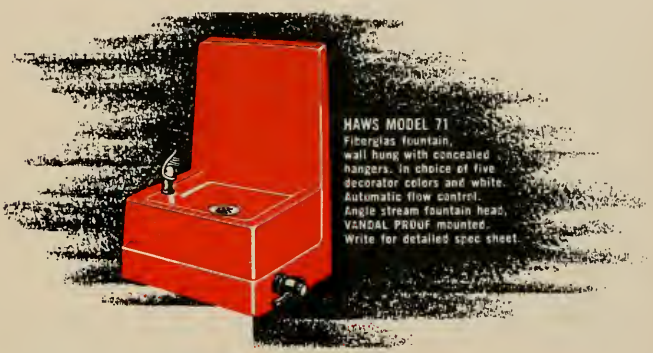
### HOLLY-GENERAL MERGE OFFICES

William Keegan, president of Holly Mfg., Co. of Pasadena, division of The Siegler Corp., and of General Water Heater Corp., Burbank, wholly owned subsidiary of The Siegler Corp., has announced the combination of the administrative and sales activities of these organizations into a new division to be known as the Holly-General Company, with headquarters in Pasadena.

General Water Heater Corp. and the Holly Mfg. Co., will continue manufacturing at their present locations.

### ASSOCIATED WOOD PRODUCTS MOVE

The Associated Wood Products, Inc., structural timber contractors, and the Associated Glu-Lam Products, Inc., have moved into new offices at 1220 6th Street, Berkeley, California.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## A.I.A. ACTIVITIES

(From page 25)

make enforcement of the provisions of the law more effective.

Awards of the Second Annual Honor Awards Competition and Presentation will be made at the June 18th Chapter meeting.

Recent new members include: Jack St. Clair, Associate Member.

### AMERICAN INSTITUTE OF ARCHITECTS MEET

Leaders in the fields of technology, government, education, business, labor and the arts addressed the Centennial Celebration Program of the American Institute of Architects held this month in Washington, D.C. in a variety of conferences dedicated to the "re-exploration of America."

Leon Chatelain, Jr., president of the AIA, comprising some 12,000 of the nation's outstanding architects, declared the purpose of the program, entitled "A New Century Beckons," is to "discuss the complex forces which shape human environment, rather than the practice of architecture or the technical aspects of building.

"By gathering the best possible information from fields in which development of new knowledge and technology alter the pattern of American living, we, as planners of the nation's physical environment, will have an unparalleled opportunity to lay new foundations for the environment of the future," Chatelain said. "Call it, if you will, a re-exploration of America."

One hundred years ago, when the A.I.A. was founded by 13 architects in New York City, the architect was concerned with providing shelter for a burgeoning pioneer society, Chatelain said.

Today, he declared, "The architect must consider, simultaneously, man's physical environment in relation to his new social aspirations and spiritual needs; to a host of new contrivances which afford him new comfort and leisure time; to new problems of traffic flow, land use, and urban congestion; even to the problem of shielding him, not from the elements alone, but from the hazards of a world whose skill at making weapons has outstripped its ability to live without them."

### NORTHERN CALIFORNIA CHAPTER

William Corlett, national award winning Bay Area architect, was elected president of the Northern California Chapter AIA, at the annual meeting May 7. He is a partner in the San Francisco firm of Corlett and Spackman, AIA Architects, and succeeds William S. Allen as Chapter president.

**WILLIAM CORLETT**
**President**

Other officers elected included: Donald Powers Smith, vice-president; George T. Rockrise, secretary; Richard S. Banwell, treasurer; and Directors, W. Clement Ambrose, John Kruse, Bernard J. Sabaroff and Corwin Booth. Certificates were presented to 22 winners of the recent architectural honor awards competition sponsored by the five Northern California chapters of the AIA.

The firm of Corlett and Spackman has designed national award winning schools in Marin and Napa Counties, and recently completed the award winning Heavy Ion Accelerator Building for the Atomic Energy Commission at the Berkeley Radiation Laboratory.

Corlett recently returned from the Orient and the Olympic Games at Melbourne, Australia, where he presented architectural plans for the 1960 Olympic

*PHOTO CREDITS: Daniel W. Brock, Page 8, 9, 10, 11, 12, 13, 14 & 15; William Skeahan, Page 16; Architectural-Industrial Photo Service, Page 17 & California Enameling Co.; Cal-Pictures, Page 18, 19; Green & Tillisch, Page 20, 21, & US Steel Corpn.*


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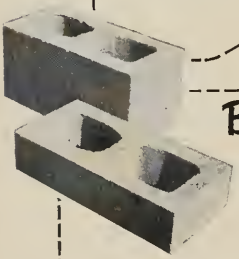

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Games in Squaw Valley, California, on behalf of the associated firm of Corlett, Spackman, Kitchen and Hunt.

The Northern California Chapter, oldest in California, recently celebrated its 75th anniversary, and is participating this year in the centennial celebration of the American Institute of Architects.

## PASADENA CHAPTER

Lyle Stewart, city planner and member of the Simon Eisner Associates, Planning Consultants, illustrated a discussion on contemporary architecture and city planning in England, Sweden and Denmark at the May meeting held in Eaton's Restaurant, Arcadia. Much of the speaker's material was obtained as the result of a Fulbright Scholarship tour of Europe.

New Member: Philip C. Patterson, Corporate Member.

## WAL—SAN DIEGO

"Witness for the Prosecution," an Agatha Christie mystery play was presented at the annual benefit theater party, sponsored by the League, at the Globe Theater this month. Preceeded by a cocktail hour and dinner at the House of Hospitality, arrangements were in charge of Mrs. Earl MacDonald, Ways and Means Chairman and Mrs. Delmar Mitchell, Social Chairman.

## WASHINGTON STATE CHAPTER

Harold Shefelman was the principal speaker at the annual Joint AIA-Alumni-Student Awards meeting, May 9, at the Edmond Meany Hotel, Seattle, taking as his subject "The Role of the Citizen in the Community."

New members include: Edward Leonard Cushman, William Edward Paddock, Omer L. Mithun and Jay Robinson, Jr. Corporate Members; Richard Bouillon, Benjamine Edwards, Michael D. Ossewaarde, William A. Phipps, and Maurice R. Smith Associate Members.

## PACIFIC NORTHWEST REGIONAL CONFERENCE

The annual Pacific Northwest Regional Conference AIA will be held on October 17-20 at Gearhart, Oregon, with the theme of the conference being "Expanding The Profession of Architecture." Among speakers already scheduled to appear during the 4-day sessions are: Henry Hill, Francis McCarthy, Jose Louis Sert, and Thomas Creighton. Arrangements for the meetings is in charge of the Oregon Chapter AIA.

## SOUTHWEST WASHINGTON CHAPTER

The Legislative Committee, meeting with the Washington State Chapter, have been giving considerable thought and study to various legislative bills in the State Legislature pertaining to the construction


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industry, as well as careful study of the framework of a new license law, which although not proposed at this session, will be introduced later. Another pending bill is the Stock Plan Bill, which will receive careful attention if presented this year.

### SANTA CLARA & SANTA CRUZ COUNTIES CHAPTER AIA

William Glenn Balch, president of the California Council of the AIA, Los Angeles; Albert Thomas, treasurer of the CCAIA from Sacramento, and Frank Hope, secretary of the CCAIA, San Diego, were recent visitors and speakers at a Chapter meeting, discussing activities of the state organization and the enlarged program of advancement of planning in building and architectural education. Balch pointed out that although the Council is only six years old it has accomplished much in stimulating public support of architectural problems.

### CENTRAL ARIZONA CHAPTER

The May meeting, held in Phoenix, was devoted to a general discussion of "Client Relations", with discussions pointing out a number of interesting and unusual experiences faced by members in their dealings with the public.

Two recent transfer members are: Alan A. Dailey, Scottsdale, Arizona; and George A. Lyon, Phoenix.

### UNIVERSITY OF CALIFORNIA RECEIVES JULIA MORGAN FUND

A fund of $10,000, the nucleus of an endowment to aid architecture students at the University of California, has been established in memory of the late Julia Morgan, according to an announcement by Robert G. Sproul, university president.

### ARCHITECT NEUTRA SPEAKS AT LIBRARY SCIENCE MEET

"The library should be an obstetrical ward for ideas, not a mausoleum," declared Richard J. Neutra, F.A.I.A., architect, at the opening session of the University of Southern California School of Library Science's Institute on Public Library Architecture.

Too often in the past, static perpetuity has distinguished library buildings and according to architect Neutra "The design of libraries should not result in architecture commemorating the dead."

### R. S. REYNOLDS MEMORIAL AWARD IN ARCHITECTURE ANNOUNCED

A special jury of the American Institute of Architects announced that the first winner of the R. S. Reynolds Memorial Award, a $25,000 international prize for architects, is the firm of Cesar Ortiz-Echague, Manuel Barbero Rebolledo y Rafael de la Joya, of Madrid, Spain. The structure which won them the


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The R. S. Reynolds Memorial Award was established as a tribute to the late founder of the Reynolds Metals Company and is administered by the American Institute of Architects. It is to be made annually to the architect, or group of architects, who make the "most significant contribution to the use of aluminum, esthetically or structurally, in the building field." It consists of $25,000 and an emblem in the form of a piece of original sculpture.

Announcement of the winner was made by George Bain Cummings, of Binghamton, N. Y., chairman of the special AIA jury. His fellow jurors are Willem M. Dudok, of Hilversum, Holland; Percival Goodman, of New York; Ludwig Mies van der Rohe, of Chicago; and Edgar I. Williams, of New York. In the judging, Mr. Cummings said, they considered 86 different entries from 19 countries.

## PSYCHOLOGICAL PAINTED SCHOOL

(From page 7)

hours, whether they are bored or interested, whether they are eager to learn or restless.

REPAINTING FOR EMOTIONAL EFFECTS

Brooklyn Technical High School, the largest single building unit in New York's educational system, was redecorated recently with the emotional effects of color in mind. Color today is considered an important factor in molding attitudes and viewpoints of children.

Light-colored walls and ceilings, together with sufficient natural or artificial light, are known to produce an environment which improves health, is conducive to study and at the same time produces a cheerful and artistic effect. The functional use of color has been used in New York school decorating since 1945. As approved by the New York school officials, the color program is an extension of the theory of color conditioning used in hospitals and in industry.

In the shops at Brooklyn Technical High School, all machines have been painted gray, with working parts colored buff to concentrate attention on them. Switch boxes are blue to signal against careless operation of the machines. Brilliant orange has been used for acute hazards likely to cut, crush or burn. A yellow-and-black combination focuses attention on stumbling or falling hazards.

Dr. Wadsworth, a physician interested for many years in the study of color effects on the human body and mind, has the theory that childhood contemplation of hideous wallpaint or wallpaper, with green or yellow cabbages everlastingly shrieking for attention, may have started some of the neurotic men and women of today on the path to their neuroses. This may seem somewhat exaggerated, but too little attention had been given in past times to the influence of color on child psychology.

According to Dr. William Jansen, Superintendent of Schools in New York, vandalism has decreased where schools are attractively painted. He declared that "the entire tone of a community can be raised by the children's awareness of the beauty and cheerfulness of color."

---

ENGINEER GEORGE WASHINGTON, San Francisco, structural engineer, is making a detailed study of blast damage suffered in Reno, Nevada, during the recent gas explosions. He is documenting his material with color photographs.

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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**ARCHITECTS DETAIL SHEETS. Edited by Edward D. Mills, F.R.I.B.A. Third Series. Philosophical Library, Inc., 15 E. 40th St., New York 16. Price $12.00.**

This is the third of a series and represents 96 selected sheets of architectural detail that should be welcome not only by architects and architectural students, but also by students and apprentices in the building trade and by building craftsmen who will find them a useful supplement to existing textbooks and of assistance in their practical training and daily work.

The book contains a selection of 96 scale drawings and over 100 photographs, including some in full color. All details are of current buildings, and examples have been drawn from the work of contemporary architects in various parts of the world. A special feature is a lively and pointed article by architect Richard Neutra, which emphasizes the importance of good architectural detailing.

**AMERICAN CIVIL ENGINEERING PRACTICE, Vol. 1 & 2. By Robert W. Abbett. John Wiley & Sons, Inc., 440 4th Ave., New York 16. Price $15.00 each.**

Covers a wide variety of subjects pertinent to the practice of Civil Engineering, including metropolitan and community planning, surveying, traffic engineering, highway engineering, airport engineering, soil mechanics and site examination, foundations, earthwork and dredging, hydraulics and pumping, dams, irrigation and land drainage, public water supply, sewerage and sewage disposal, refuse collection and disposal, mathematical tables, and a complete index to both volumes.

**PLANNING FACILITIES FOR HEALTH, PHYSICAL EDUCATION AND RECREATION. Revised Edition. The Athletic Institute Inc., 209 S. State Street, Chicago, Ill. Price $2.50.**

This publication is the result of a national conference of experts in the field of health, physical education and recreation, held at Michigan State University in May 1956.

Included in the 160 page book are the latest ideas and suggestions on the functional development of all types of sports areas, playgrounds, parks, stadiums, camps, gymnasiums, swimming pools, recreation buildings, health units, and athletic fields. Also includes data on heating, lighting, painting, traffic flow, spectator seating, floodlighting, ventilation, surfacing, equipment, and space requirements as well as hundreds of useful ideas for solving construction problems.

**ASTM STANDARDS IN BUILDING CODES — Supplement to 1955 edition. 224 pages. ASTMaterials, 1916 Race Street, Philadelphia 3, Pa. Price $2.75.**

The 1956 Supplement of the 1955 Compilation of ASTM STANDARDS IN BUILDING CODES includes revisions and new ASTM standards for construction materials that have been accepted since publication of the 1955 edition.

Seven new specifications and two new methods of test are included. Twenty-one standards and tentatives with extensive revisions are published in their entirety and 63 standards and tentatives have small revisions completely described to bring the 1955 compilation up-to-date.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Portable hoists.** New 12-page, 2-color booklet describes single drum, multi-purpose portable hoists; well illustrated, description, specifications; electric and gasoline driven; sizes from 0.9 to 15 h.p. with lifting capacities from 750 to 5000 lbs at rope speeds up to 125 f.p.m.; wire rope capacities range from 200 to 1500 ft. Free copy write DEPT-A&E, Joy Mfg. Co., Henry W. Oliver Bldg., Pittsburgh 22, Pa.

**Modern entrance control.** A new 4-page folder describes modern entrance control for arenas, auditoriums and coliseums; graphically illustrated, describes many major control

problems; section of questions and answers; turnstile models illustrated with descriptive features and application. Write for free copy DEPT-A&E, Perey Turnstile Co., Suite 402, Architects Bldg., New York 17, N. Y.

**Specifications for metal lathing and furring.** Newly revised (AIA File No. 20-B-1). Specifications for Metal Lathing and Furring written in detail so that complete information is available to those who write specifications; sample type specifications; illustrations; material specifications; design tables. Free copy write DEPT-A&E, Metal Lath Mfg. Ass'n., Engineers Bldg., Cleveland 14, Ohio.

**Handbook on painting swimming pools.** Now available for architects, engineers, builders and others interested in the subject of swimming pools; a new handbook on Painting Swimming Pools; charts show type of pool, paint to use, number of coats, gal. per coat, color chart; a complete descriptive booklet. Free write DEPT-A&E, Inertol Co., Inc., 27 South Park, San Francisco 7.

**Grating and treads.** An informative, illustrated bulletin (AIA File No. 14R) on grating and treads; presents descriptions on electroforged, riveted, rectangular, diagonal, "U" type and "T" interlocked grating and treads; tables on safe loads; specifications. Free copy write DEPT-A&E, Grating Dept. Blaw-Knox Co., P. O. Box 1198, Pittsburgh 30, Pa.

**Proper illumination.** A new series of "Fact Books" designed to aid electrical contractors in the presentation of the story of good lighting to the purchasers of industrial and commercial lighting; spells out the gains to be realized through installation of proper lighting; also cites specific instances of calculable results of relighting their premises to National Lighting Bureau standards. Business and school administrators interested in increasing efficiency, may secure copies of these booklets by writing DEPT-A&E, National Lighting Bureau, 155 E. 44th St., New York 17.

**Douglas Fir Plywood construction guide.** A new 34-page, four sectioned construction guide, contains full-page structural drawings providing authoritative basic information on types, grades, and applications of fir plywood for builders, architects, engineers and building code officials; data on floor construction, single and double wall construction, and roof construction, including recommendations and plywood excerpts from "minimum property requirements" of the FHA. Free copy available write DEPT-A&E, Douglas Fir Plywood Association, Tacoma 2, Washington.

**Swimming pool supplies.** New catalog and data book of swimming pool supplies, chemicals and equipment (AIA File No. 35-F-2); profusely illustrated; data, photographs and prices of every item needed to build a new residential or public pool, or to equip and maintain an existing pool; pressure filter systems for private and public pools; charts to select proper size filter; and detailed information about new "buried type" filters for residential pools where space is limited; proper pool care and maintenance, and detailed description of approved water-treatment chemicals; catalog is designed to help pool owners and builders, architects, engineers, institutional and school administrators. Free copy write DEPT-A&E, Modern Swimming Pool Co. Inc., 1 Holland Ave., White Plains, New York.


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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Materiel Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$135.00 up (according to class of work).
Face Brick—Per 1 M laid—$200.00 and up (according to class of work).
Brick Steps—$3.00 and up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.50 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

| | |
|---|---|
| **Building Tile—** | |
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |
| **Hollow Tile—** | |
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| **Sand—** | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**

Common (all brands, paper sacks), Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl. ..... 4.14

Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.

Cash discount on L.C.L. ..... 2%

Trinity White, Medusa White, Calaveras White ..... 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20

Curing Compound, cleer, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | .... | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ⅛-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square.

Membrane waterproofing—4 layers of saturated felt, $13.50 per square.

Hot coating work, $6.00 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricosal concrete waterproofing, 60c a cubic yd. and up.

**ELECTRIC WIRING**—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, 1/8 in. gauge 22c to 35c per sq. ft.

Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.

Linoleum, standard gauge, $3.75 sq. yd. & up laid.

Mastipave—$1.50 per sq. yd.

Battleship Linoleum—$5.00 sq. yd. & up laid.

Terazzo Floors—$2.00 per sq. ft.

Terazzo Steps—$3.50 per lin. ft.

**Mastic Wear Coat**—according to type—20c to 35c.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | 13/16x2¼ | ½x2 | ⅜x2 | ¼x2 |
|---|---|---|---|---|
| | $ | $ | $ | $ |
| Clear Qtd., White | $425 | $405 | | |
| Clear Qtd., Red | 405 | 380 | | |
| Select Qtd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ¾ x 2¼ | 390.00 | 381.00 |
| ¾ x 2¾ | 375.00 | 355.00 |
| ¾ x 3¼ | 395.00 | 375.00 |
| ¾ x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| ¾ x 2¼ First Grade | $390.00 |
| ¾ x 2¼ 2nd Grade | 365.00 |
| ¾ x 2¼ 2nd & Btr. Grade | 375.00 |
| ¾ x 2¼ 3rd Grade | 240.00 |
| ¾ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ¾ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| | |
|---|---|
| **Furnaces—Gas Fired** | |
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| **Water Heaters—5-year guarantee** | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. B & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry, 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-SIS ..... $150.00
½-inch, 4.0x8.0-SIS ..... 200.00
¾-inch, per M sq. ft. ..... 260.00
Plyform ..... 160.00

**Shingles** (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $6.00 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.00 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $35 per M to above
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond, 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., upper $12 to $15; lower $14 to $15.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .80 |
| Three-coat work | per yard | 1.20 |
| Cold water painting | per yard | .35 |
| Whitewashing | per yard | .20 |

| **Linseed Oil, Strictly Pure** (Basis 7¾ lbs. per gal.) | | Raw | Wholesale Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| **Turpentine** (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

Price to Painters—Price Per 100 Pounds

| | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $.... | $.... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.50 lineal foot |
| 8-inch | 3.00 lineal foot |
| 10-inch | 4.00 lineal foot |
| 12-inch | 5.00 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.50 |
| Keene cement on metal lath | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.50 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.25 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 14.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Asbestos Shingles, $27 to $35 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .26
Standard, 6-in. ..... .46
Standard, 8-in. ..... .66
Standard, 12 in. ..... 1.30
Standard, 24-in. ..... 5.41
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless, (unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. .. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.
¼-in. Rd. (Less than 1 ton) per 100 lbs. ..... $8.90
⅜-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.80
½-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.50
⅝-in. Rd. (Less than 1 ton) per 100 lbs. ..... 7.25
¾-in. & ⅞-in. Rd. (Less than 1 ton) ..... 7.15
1 in. & up (Less than 1 ton) ..... 7.10
1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.85 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.85 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.50 to $2.00 per sq. ft.
Asphalt Tile Floor 1/8" - 3/16" ..... $ .18 - $ .35 sq. yd. Light shades slightly higher.
Cork Tile—$ .70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| | F.O.B. S. F. |
|---|---|
| Scored | |
| 12 x 12, each | $ .17 |

| **Krattile:** Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x 7/8-inch, plain | $ .28 | $ .253 |
| 6 x 12 x 7/8-inch, plain | .295 | .265 |
| 6 x 6 x 7/8-inch, plain | .32 | .287 |

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

50c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
PORTLAND WIRE & IRON WORKS
4644 S.E. Seventeenth Ave., Portland 2, Ore.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
Face Brick
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Afonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121

KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
LOUIS V. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco: 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Shotwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
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PATRICK J. RUANE
San Francisco: 44 San Jose Ave., MI 7-6414

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SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
San Francisco: 621 Bayshore Blvd., JU 4-6670
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT SALES CO. OF NO. CALIF.
Berkeley: 1000 Ashby Ave., TH 3-4964

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 6D7
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
O. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHINERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
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Los Angeles: 2901 Los Feliz Blvd., OL 2121
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Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
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**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
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EASYBOW ENGINEERING & RESEARCH CO.
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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| STRUCTURAL | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER | | | | | | | | |
| TRACTOR OPERATOR (MIN.) | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| POWER SHOVEL OP. (MIN.) | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm--Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**STUDENT HEALTH BLDG.,** Fresno State Hospital, Fresno. State of California, Sacramento, owner. Wood frame, concrete foundation and floor slab, composition roofing, dry wall interior, cement plaster exterior, aluminum sash, X-ray shielded room, mechanical, electrical—$106,800. ARCHITECT: State Architect, Sacramento. GENERAL CONTRACTOR: L. B. Pipes Co., 4164 Van Ness, Fresno.

**PACOIMA SCHOOL ADD'N.,** Los Angeles Board of Education, Los Angeles, owner. 1-Story frame and stucco classroom building; 184x55 ft. in area; composition roofing, concrete floor, asphalt tile floor covering, mass and reinforced concrete, miscellaneous metal, masonry, lath and plaster, cabinet work, marble and tile, glass, acoustical tile, painting, heating, ventilating, plumbing, electrical work—$148,460. ARCHITECT: Lind & Sontochi, 833 N. Kings Rd., Los Angeles. GENERAL CONTRACTOR: Slatebo Corp., 5175 W. Washington Blvd., Los Angeles.

**WAREHOUSE BLDG.,** Stockton, San Joaquin county. Flothill Products, Inc., Stockton, owner. 1-Story concrete tilt-up construction, wood bolstering trusses, composition roofing, electrical work, fire extinguisher equipment to be bid separate; 41,000 sq. ft. area—$119,986. ARCHITECT: Johnson, Mayo & De Wolf, Exchange Bldg., Stockton. GENERAL CONTRACTOR: Crafts Const. Co., 2812 Sanguinetti Lane, Stockton.

**MILLS HIGH SCHOOL,** Millbrae, San Mateo county. San Mateo Union High School District, San Mateo, owner. New Mills High School—62 classrooms, administration, 4 shops, 2 gymnasiums with shower and locker rooms, cafeteria and equipped kitchen, auditorium, swimming and diving pool; 196,000 sq. ft. of floor area; grading, roadways, paving, tennis courts, running track, chain link fencing, rain water collection and irrigation systems, trenched footings, slab-on-grade, frame welded steel, metal roof decking, prismatic glass block skylights, movable interior partitions, mechanical and electrical work, hot water boilers, automatic fire sprinklers, landscaping—$4,032,400. ARCHITECT: John Lyon Reid & Partners, 1069 Market St., San Francisco. GENERAL CONTRACTOR: Rothchild. Raffin & Weirick & Northern (Joint Venture) 276 Brannan St., San Francisco.

**AUTO SALES OFFICE,** North Hollywood, Los Angeles county. Martin Pollard Co., Sherman Oaks, owner. Frame and stucco construction, composition roofing, aluminum and glass store front, asphalt tile flooring, acoustical plaster, plywood walls, wood fence; 18x33 ft.—$10,000. PLANS: Alfred Boeke, 12345 Ventura Blvd., North Hollywood. GENERAL CONTRACTOR: Kersey Kinsey Co., North Hollywood, Calif.

**GARRISON STREET SCHOOL,** Ceres Stanislaus county. Ceres Elementary School District, owner. New facilities include administration, 10 classrooms, kindergarten, toilets $144,011. ARCHITECT: Mitchell Van Bourg & Associates, Hotel Claremont, Berkeley. GENERAL CONTRACTOR: Walter A. Hachman, P. O. Box 1424, Stockton.

**AUTOMOBILE SALES & SERVICE,** San Jose, Santa Clara county. Anderson Motor Co., San Jose, owner. 1-Story, mezzanine, combination offices and new car sales room, service department and repair shops — $68,300. ARCHITECT: Kress, Goudie, Kress, 362 Park Ave., San Jose. GENERAL CONTRACTOR: Oscar W. Meyers, 1681 Dry Creek Rd., San Jose.

**WHITEHORN ELEMENTARY SCHOOL,** Miranda, Humboldt county. Southern Humboldt Unified School District, Miranda, owner. 1-Story wood frame construction, providing 2 classrooms, administration, kitchen, storage rooms, and toilet facilities—$65,581. ARCHITECT: Hansen & Winkler, 251 Post St. GENERAL CONTRACTOR: Beacon Const. Co., 1745 Filbert St., San Francisco.

**STORES TO OFFICES,** Beverly Hills, Los Angeles county. Max Rouse, Beverly Hills, owner. Convert store building to 16 offices, drywall partitions, electrical, toilets, stucco and wood siding exterior, forced air heating, air conditioning. ARCHITECT: Stegman, Ferzacca & Earl (H. Herbert Stegman, architect), 4041 Marlton Ave., Los Angeles. GENERAL CONTRACTOR: H. Wasserman, 8230 Beverly Blvd., Los Angeles.

**COMMUNICATIONS BLDG.,** San Jose, Santa Clara county. City of San Jose, owner. 1-Story Type A reinforced concrete construction in city's new Civic Center — $163,700. ARCHITECT: Kurt Gross, 390 Park Ave., San Jose. GENERAL CONTRACTOR: George Bianchia, 1850 So. 7th St., San Jose.

**McCLYMONDS HIGH SCHOOL ADD'N.,** Oakland, Alameda county. Oakland Unified School District, Oakland, owner. Addition of a new gymnasium building to present facilities; 26,000 sq. ft. of area, concrete reinforced construction $421,310. ARCHITECT: Ira Beals, 1419 Broadway, Oakland. GENERAL CONTRACTOR: Bishop-Mattei Const. Co., Pier 7, San Francisco.

**SYNAGOGUE BLDG.,** Venice District of West Los Angeles. West Los Angeles Synagogue, owner. Composition and crushed rock roof, asphalt tile, ceramic tile, ceramic tile and concrete floors, interior plaster, acoustical tile ceilings, forced air heating, metal toilet partitions, insulation, concrete paving, concrete block veneer, chain link fencing, aluminum casement and sliding sash—$50,000. ARCHITECT: J. Kichaven, 9548 W. Pico Blvd., Los Angeles.

**TOLL PLAZA BLDG.,** S. F.-Oakland Bridge, Alameda county. State of California, Sacramento, owner. Additions and alterations to present facilities of the Toll-Plaza—$954,856. ARCHITECT: Anson Boyd, State Architect, Sacramento. GENERAL CONTRACTOR: S. J. Amoroso Const. Co., 2100 Oakdale Ave., San Francisco.

**STEAM-ELECTRIC GENERATOR,** Scotia, Humboldt County. Pacific Lumber Company, Scotia, owner. Engineering, procurement and construction of a 150,000 pounds-per-hour steam generator and a 7,500 kilowatt electric generator—$2,000,000. GENERAL CONTRACTOR: Fluor Corp., Ltd., 2500 S. Atlantic Blvd., Los Angeles.

**EROSION CONTROL & ELECTRICAL SUBSTATIONS,** Air Force Academy, Colorado Springs, Colorado, U.S. Air Force, Washington, D. C., owner. Site work, soil erosion prevention and construction of electrical sub-stations — $14,472. GENERAL CONTRACTOR: Consolidated Nurseries of Colorado, Inc., Denver.

**HIGH SCHOOL ADD'N.,** Sparks, Nevada. Sparks School District, Sparks, Nevada, owner. 1-Story brick and steel frame construction; administration, 6-class-rooms, shop building—$362,500. ARCHITECT: DeLongchamps & O'Brien, 160 Chestnut St., Reno, Nevada. GENERAL CONTRACTOR: McKenzie Const. Co., 560 Kietzke Lane, Reno.

**ANALY UNION HIGH SCHOOL ADD'N.,** Sebastopol, Sonoma county. Analy Union High School District, Sebastopol, owner. New facilities comprise 8 classrooms—$188,900. ARCHITECT: J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa. GENERAL CONTRACTOR: Ben Orestsky, 8570 Cypress Ave., Cotati.

**SWIMMING POOL & BATH HOUSE,** Sierra Madre, Los Angeles county. City of Sierra Madre, owner. New swiming pool and bath house, 40x100 ft. pool—$86,710. ARCHITECT: Robert H. Ainsworth, 1199 E. Walnut St., Pasadena. GENERAL CONTRACTOR: C & H Contractors, 5218 N. Kauffman Ave., Temple City.


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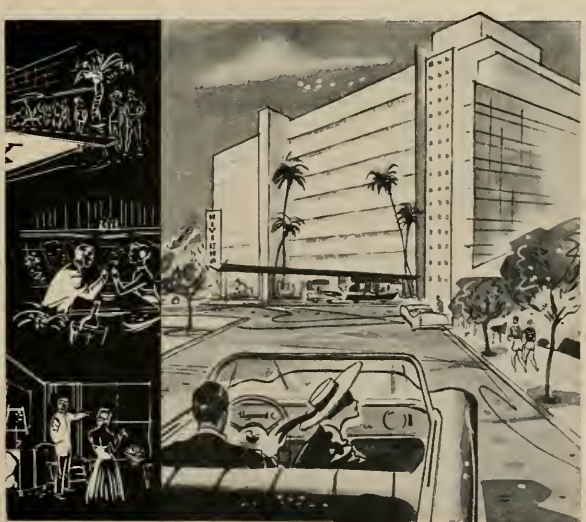

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# IN THE NEWS

## CONSULTING ENGINEER OPENS NEW OFFICES

Hugh C. Carter has announced the formation of a new consulting engineering organization, the Hugh Carter Engineering Company, and will maintain offices at 222 Atlantic Avenue, Long Beach.

The firm will specialize in preparation of working drawings and specifications for all types of mechanical installations required for industrial and commercial projects. The company will also prepare proposals and estimates for use in initial planning and budgeting.

Carter is a graduate of the California Institute of Technology and has lectured on heating and air conditioning and mechanical estimating at Los Angeles City College and the University of Southern California.


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## CAFETERIA BUILDING FOR NORTH AMERICAN AVIATION

Construction has started on a 8,500 sq. ft. cafeteria building for the Atomics International, a division of North American Aviation, Inc., Canoga Park, California, at a cost of $250,000.

To be completed this summer the building will include air conditioned dining rooms, two serving lines, sandwich stand, kitchen and service rooms, with the main dining room seating 220 persons and convertible into a large conference room.

Architect and engineer is Van Dyke and Barnes. Contractor is Richard M. Lane, Co. General Contractors.

## UNISTRUT SALES IN NEW OFFICES

The Unistrut Sales of Northern California, Inc., has moved into new and larger offices and warehouse at 2547 Ninth Street, Berkeley, according to a recent announcement by company officials. The new telephone number is THornwall 1-3031.

## SUNDAY SCHOOL PLANS COMPLETE

Architect Leslie I. Nichols, 454 Forest Avenue, Palo Alto, has completed drawings for construction of a new Sunday School building in Menlo Park for the First Church Christ Scientist of Menlo Park.

Two buildings will be constructed, 113x64 feet; concrete block and frame construction with structural steel roof trusses and wood roof.

## PORTUGUESE LODGE HALL

Architects Hale & Jacobsohn, Highway 9 at Mission Irvington Road, Mission San Jose, is completing drawings for construction of a one-story, 8,000-sq.-ft. building in Mission San Jose, for the I.D.E.S. Estimated cost of the work is $100,000.

## HAWAIIAN VILLAGE HOTEL HONOLULU

Completion of the multi-million-dollar, 14-story Hawaiian Village Hotel in Honolulu has been announced by Fritz B. Burns, president of the Kaiser-Burns Development Corp., owner and developer of the village.

The new development will include 260 rooms, each with a private lanai at least 10x15 feet in size. Other facilities include private dining rooms, the Tiare Tahitian Room restaurant and night club, and specialty shops. A penthouse on top of the hotel is the home base of KHVH, radio and TV station.

The hotel was totally designed by Welton Becket & Associates, with Edwin L. Bauer of Honolulu as associate architect.


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## ANIMAL HUSBANDRY AND DAIRY CATTLE

Architect Albert Hunter, Jr., Ashby Ave. at 7th St., Berkeley, is completing drawings for construction of a new steel and frame, aluminum exterior, Animal Husbandry and Dairy Cattle unit on the Davis campus of the University of California.

## NEW CURTIS CREEK ELEMENTARY SCHOOL

Architect Warren L. Wong, 2644 Pacific St., Stockton, is completing drawings for construction of a one-story frame and stucco Curtis Creek Elementary School at Standard in Tuolumne County, for the Curtis Creek Elementary School District.

The new facilities will include administration, eight classrooms, kindergarten, kitchen, multi-purpose, toilets, etc.

## KENT J. ATTRIDGE GETS RECOGNITION

Kent J. Attridge, architect with Welton Becket and Associates, Los Angeles firm of architects and engineers, has been elected to full membership in the Acoustical Society of America, Society officials have announced.

Attridge was honored for his "substantial contribution to the advancement of acoustical science in the field of architectural acoustics." He has worked on acoustical

design for the Becket firm on a number of outstanding projects including the Hollywood Bowl, the Santa Monica Civic Auditorium, and the UCLA Music Building.

### HOSPITAL ADDITION

Architect Mitchell Van Bourg, Hotel Claremont, Berkeley, is completing drawings for construction of a 1-story addition to the Albany Hospital at an estimated cost of $350,000.

Facilities will provide for 21 beds, surgery and X-ray rooms; construction will be reinforced concrete block and frame with frame and stucco exterior.

### NEW GARAGE FOR OAKLAND

The architectural firm of Stone, Mulloy, Marraccini & Patterson, 619 California Street, San Francisco, are working on plans for construction of a new $1,000,000 garage building for the Capitol Company to be built in Oakland.

The new building will be 9 stories in height, structural and reinforced concrete construction.

Alfred J. Ryan, 1340 Glenarm Place, Denver, Colorado, is the Consulting Engineer for the project.

### WOMEN'S DORMITORY COLLEGE OF PACIFIC

Architects Clowdsley & Whipple, Exchange Building, Stockton, have completed plans for construction of a new 400-student dormitory building for the College of the Pacific in Stockton.

The new facilities will include also a dining room and kitchen; will be 1-2-3 stories in height and of frame and brick veneer construction.

### BOWLING ALLEY LOS ANGELES

The architectural firm of Powers, Daly & DeRosa of Long Beach, recently completed plans for construction of a $1,500,000 Mercury Bowl project in Los Angeles county.

The project will have 56 alleys, cocktail lounge, coffee shop, billiard room, nursery and sporting goods shop, and will contain 58,000 sq. ft. of area. Construction will be concrete tilt-up.

### ANTIOCH JUNIOR HIGH SCHOOL

The architectural firm of John Lyon Reid & Partners, 1069 Market Street, San Francisco, is completing drawings for construction of a Junior High School building addition in Antioch for the Antioch-Live Oak Unified School District.

The added facilities will comprise a multi-purpose room.

### ADDS TO FIXTURE LINE OF PRODUCTS

Fluorescent Fixtures of California, under license agreement with Smoot-Holman Company of Inglewood, announce they will manufacture the "Perfect Vision" luminous indirect luminaire under the All-Brite label.

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### MARTIN J. CONLEY NAMED ASSISTANT SALES MANAGER

Martin J. Conley has been appointed assistant sales manager of Arcadia Metal Products, according to an announcement by D. P. Johnson, national sales manager, for the Fullerton, California, firm.

In addition to assisting the sales manager, Conley will have supervision of the company's advertising, sales promotion, and merchandising program.

### MORTIMER B. DOYLE ELECTED NEW POST

Mortimer B. Doyle of Chicago, has been elected executive vice-president of the National Lumber Manufacturers Association, according to an announcement by Walter M. Leuthold, association president. He succeeds Leo V. Bodine, who resigned to accept a vice president position with the Diamond Match Co.

As chief administrative executive, Doyle will have charge of the association's headquarters in Washington, D. C., and its field offices in New York, New Orleans, Chicago, and San Francisco.

### WILLIAM G. ALEXANDER NAMED CHIEF ENGINEER

William G. Alexander has been appointed Chief Engineer for Stromberg-Carlson's San Diego plant operations, according to Harold P. Field, manager of the San Diego


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Division of General Dynamics Corporation.

He will direct all engineering activities of the company in San Diego, including computer readout systems, airborne electronics, the Charactron shaped beam tube and development of other types of large cathode ray tubes.

Prior to assuming his new duties in San Diego, Alexander was manager of the high resolution radar section at Westinghouse Electric Corporation's Air Arm Division in Baltimore, Md.

### RICHARD L. SCHERBACHER NAMED DIRECTOR OF SALES

Richard L. Scherbacher, formerly Pomona Tile Manufacturing Company advertising and promotion manager, has been appointed director of sales, a new position created by the company, according to an announcement by Drew Schroeder, president of the firm.

Scherbacher is a graduate of the University of California at Berkeley.

### PAUL V. HENNESSY, CE JOINS GLADDING, McBEAN

Paul V. Hennessy, has been appointed a civil engineer with the Pipe Products Division of Gladding, McBean & Co., according to an announcement by R. C. Conover, division vice president and general manager.

Hennessy is a graduate of the University of Southern California with a B.S. degree in civil engineering. Active in association affairs, he is chairman of the Los Angeles chapter of the ASCE sanitary group, a member of the CSIWA and the Arizona Sewerage and Water Works Association. He will make his headquarters in the company's San Francisco offices.

### CHARLES E. MORGAN JOINS SEATTLE ARCHITECTURAL FIRM

Charles E. Morgan, graduate of the School of Architecture at the University of Washington in 1953, has become an associate member of the Architectural firm of Blaine McCool & Associates, Architects, 9700 Roosevelt Way, Seattle, Washington.

Since graduation from school, Morgan spent a year studying architecture in Europe, and for the past two years has been a member of the firm he now becomes associated with.

### LA DESIGNER GETS EUROPEAN COMMISSION

Designer Edgar Kober of the firm of Burke, Kober & Nicholais, Los Angeles, left recently for an extended tour of European department stores and study of design practices in conjunction with the firm's commission to design the $1,000,000 interior of the new Vroom & Dreesman department store in Heerlen, The Netherlands.

When finished the building will be the largest in the city of 200,000 population, and one of the largest in Holland. It will be 15 stories high, with the department store occupying the lower six floors and apartment dwellings occupying the remainder.

### ARCHITECT OPENS OFFICE

Wallace Holm, AIA, Architect and Associates, announce the practice of architecture at 321 Webster Street, Monterey, California, under the new name. The firm was formerly identified as Butner, Holm & Waterman.

### G. A. HOCHENAUER JOINS SMOOT-HOLMAN

G. A. Hochenauer has been appointed Sales Engineer in charge of servicing accounts in the Southern California area, according to an announcement by L. A. Hobbs, vice president of the Smoot-Holman Company of Inglewood.

With more than 30 years experience in the industrial and commercial lighting field, Hochenauer has spent the last 17 years specializing in sales engineering work on the West Coast. He is currently chairman of the Southern California Section of the Illumination Engineering Society of America.

### TILE COUNCIL REPORTS INCREASED TILE USE

Use of ceramic tile in home building in California has increased an estimated 200 per cent in the last decade, according to Verne Boget, Gladding, McBean Company, Los Angeles, and a member of the board of directors of the Tile Council of America, Inc.

Boget headed a Tile Council state study to determine whether further expansion was necessary in the industry to meet the many new demands for ceramic tile. Results of the study indicate that recent expansion of productive capacity within the industry is sufficient to more than meet any new demands in the years ahead.

"Other information derived from the study," according to Boget, "shows that pastel shades of pink and gray are still the favorite hues of California homemakers, with blue running close behind. For outside terrace installation, red quarry tile is by far the favorite color choice, and sand


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buff shades are next," he concludes.

Ceramic tile in commercial and institutional building constitutes as great a market as does residential use, and another significant market for ceramic tile, both glazed and unglazed, is bathroom and kitchen countertops where installations have increased nearly 90 per cent in the last 10 years.

### LUTHERAN CHURCH FOR LIVERMORE

Architect Donald Powers Smith, 133 Kearny St., San Francisco, is working on drawings for construction of a new Church in Livermore for the Lutheran Church of Our Savior, Livermore.

The new building will be 1 story and balcony, reinforced concrete construction, masonry and wood frame, cement asbestos shingle roof; administration unit, educational facilities, parish hall and chapel.

### REDWOOD CITY DRIVE-IN

Robert M. Sherman, Designer, 14 41st Ave., San Mateo, has completed plans for construction of a 1-story Drive-In Restaurant and parking area in Redwood City to cost $75,000.

Construction will be masonry, glass, plaster and work includes demolition of present building on site. Completed project will contain some 5,000 sq. ft. of area.

### HIRAM W. JOHNSON SENIOR HIGH SCHOOL

Architect Chas. F. Dean, 1521 I Street, Sacramento, has completed drawings for construction of the new Hiram W. Johnson Senior High School for the Sacramento City Unified School District.

The new facilities will include 60 classrooms, cafeteria, kitchen, gymnasium, swimming pools, library, special general-use rooms. and rest rooms. Estimated cost of the project is $4,000,000.

### PORT OF OAKLAND IS OPPOSED TO FEDERAL AID

Dudley Frost, general manager of the Port of Oakland, California, as a member of the American Association of Port Authorities, is "opposed to any general policy of Federal subsidization of marine terminal facilities", as "Any such program would be disastrous to the progress made toward placing marine facilities upon a self-supporting basis, and would result in unfair competition between ports and facilities subsidized with federal funds and those not so subsidized, and would lead to further federal regulation of marine terminal operations, and would place additional burdens upon federal taxpayers."

Frost's position was taken recently following reports that Charles Tait, San Francisco port director and Cyril Magnin, president of the California State Board of Harbor Commissioners had met with government officials and legislators in Washington on the subject of Federal aid.

### DANCING WATERS MOTEL, PALM SPRINGS

The architectural firm of Powers, Daly and DeRosa, Gordon F. Powers, Architect, 3667 Atlantic Ave., Long Beach, has completed preparation of drawings for construction of the Dancing Waters Motel on Sahara Road, Rancho Mirage near Palm Springs for Dr. Harry Johnson.

The project includes 24 units, restaurant and offices, recreation building 20x92 ft. in area, manager's suite, swimming pool, 12 small units 24x16 ft. in area. Construction will be wood frame with composition and gravel roofing.

### MONTEREY PENINSULA COLLEGE ADDITION

Architect Wallace Holm, 321 Webster Street, Monterey, is completing drawings for construction of a $600,000 addition to the Monterey Peninsula College in Monterey.

The work will include science rooms, an engineering building, library, classrooms, and toilet facilities.

### NEW ELEMENTARY SCHOOL MARYSVILLE

Architect Lawrence G. Thomson, 125 W. 3rd St., Chico, has completed plans for construction of a $332,962 elementary school in the Linda District of Marysville.

The work includes administration offices, classrooms, multi-purpose rooms, heating plant, kitchen, and toilet rooms.

### BRANCH DEPARTMENT STORE AT MODESTO

Designer L. Smith & Associates, Santa Rosa, is completing drawings for construction of a $2,000,000 department store for Joseph Magnin Company, Inc. of San Francisco, to be built in the McHenry Village Shopping Center in Modesto.

Construction will be 2 story, wood frame, lath and plaster, roof decking, parking area, and will contain 15,000 sq. ft. of area.

### STUDENTS UNION RESIDENCE HALL

Architects Blanchard & Maher, 40 1st St., San Francisco, are completing drawings for construction of a $400,000 Resi-


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dence Hall-Students Union building in Oakland for the College of The Arts.

The new two- and three-story building will provide facilities for 80 students.

### PUBLIC LIBRARY FOR SANTA ANA

Architect Harold Gimeno, 1400 N. Sycamore St., Santa Ana, is completing plans for construction of a new public library in Santa Ana for the City of Santa Ana.

Construction will be reinforced concrete, concrete floor, asphalt tile, ceramic tile in restrooms, acoustical tile ceilings, steel sash, composition roofing, paved parking area, and will contain some 30,000 sq. ft. of area. Estimated cost is $700,000.

### NEW HIGH SCHOOL FOR SALINAS

Architect Jerome Kasavan, 7 Winham St., Salinas, is preparing plans and specifications for construction of a new high school building in Salinas for the Salinas Junior High School District.

Estimated cost of the project is $2,000,000.

### RESTAURANT AND RETAIL STORE

Paul E. Iacono, Structural Engineer, 2330 W. 3rd St., Los Angeles, has completed plans for constructing a frame and stucco restaurant and retail store building in Long Beach.

The project will contain 10,000 sq. ft. of area; built-up composition roofing, concrete slab, acoustical plaster, pipe columns, louvres and plate glass, and some stone veneer. Estimated cost is $45,000.

### SEARS & ROEBUCK FOR HAYWARD

The architectural firm of Reynolds & Chamberlain, 3833 Piedmont Ave., Oakland, are preparing drawings for construction of a new 2-story Sears & Roebuck department store building near Hayward on Hesperian Blvd.

The new facilities will contain 220,000 sq. ft. of area; Type I construction, air conditioning, separate service station and garden shop. Estimated cost is $3,000,000.

### BOWLING ALLEY FOR SAN JOSE

Architect Fred Marburg, 598 No. 4th St., San Jose, is preparing plans and specifications for construction of a 32-alley Bowling Alley building in San Jose for the Stevens Creek Bowl, Inc.

The 1-story, Type 3, building will provide facilities for 32 bowling alleys, a restaurant, cocktail lounge, coffee shop, billiard room, kitchen, lockers, shop, toilet facilities and will cost an estimated $300,000.


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Vol. 209 No. 3

# ARCHITECT AND ENGINEER

EDWIN H. WILDER
Editor

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See page 10 for details of other "Building With The West" projects.

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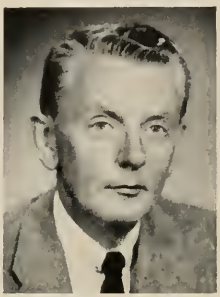
# . EDITORIAL NOTES .

INTRODUCING

## ARCHIE MacCORKINDALE

### Manager—ARCHITECTS REPORTS

Many architects, engineers and contractors, as well as numerous people throughout the construction industry, are in constant contact with our Daily ARCHITECTS REPORT Service, and thereby come in touch with Archie MacCorkindale, most recent member of our staff and manager of the report service. As most of "Mac's" work is done "over the telephone", we thought you might like to see what he "looks like", as well as know a little something about him.



ARCHIE MacCORKINDALE
Manager
DAILY ARCHITECTS
REPORTS SERVICE

Archie MacCorkindale is an American with an international background. Born in London, England, he was educated in Canada, and his work and travels have taken him from Paris, France, to Honolulu, Hawaii.

"Mac" started working as a cub reporter with the Canadian Press, graduated to Radio, and became News Editor for the Canadian Broadcasting Corp'n, working in Vancouver, Winnipeg, Toronto and Montreal. From there he was invited to go to the Central Office of Information, London, England, as a writer of documentary films for the British Government. During this time he also did some reporting and writing for the United Nations' UNESCO in Paris.

Like so many other world travelers, San Francisco gained primary appeal and "Mac" eventually arrived in San Francisco determined to make the city his "home".

Aside from getting daily material for ARCHITECTS REPORTS, his hobbies include swimming, fishing and golf, and in spite of a busy daily schedule, still is interested in television and radio activities.

Take a good look at the above photograph and the next time you are talking to "Mac" on the telephone you can visualize what he looks like, and understand his pleasant personality.

---

## WITHOUT FEDERAL AID

Under an emotion-charged heading "School Construction Crisis Facing the Country," much has been said and written by advocates for federal intervention in education.

Fervid appeals for federal tax dollars ignore what American citizens have accomplished on their own in providing new school buildings during the last ten years.

Figures compiled by the U. S. Office of Education, available to any citizen, including federal aid advocates, overwhelmingly discredit arguments for federal intervention.

The Office of Education traces the resumption of peacetime school building construction on a hearty scale from the end of World War II when the government released many critical materials previously reserved for implements of war.

It was then that new classroom additions began to outstrip needs based upon increased enrollments. In 1947, spiraling enrollments required approximately 9,500 new classrooms. School boards all over the nation countered by building 16,000.

The same story has continued. In 1950-51, increased enrollments would have required approximately 20,000 classrooms—44,000 were built; in 1955-56, 38,500 were needed and 67,000 were built.

Topping this picture, the Office of Education's most recent estimate placed the need for 1956-57 at 41,300 classrooms, and 69,000 were built.

To summarize progress of the last ten years, using 30 pupils as the average attending each classroom, increased enrollments created a need for 290,000 classrooms. However, 470,000 classrooms were constructed by state and local communities in that period.

This doesn't mean that 179,000 classrooms were not needed and should be considered surplus. It should be recognized that this coverage was used to absorb accumulated shortages left over from the depression and war years, and to replace obsolete buildings.

School building records of our citizens in the last 10 years demonstrate they are capable of meeting as well as caring for enrollment-induced requirements, without federal tax dollar subsidies to the states. And don't forgt that under the present proposed federal school aid program, many state tax collections will be considerably larger than the amount of funds returned to the local school program by the federal government.

# THE HOUSE OF THE FUTURE

By William H. Scheick, Executive Director,
Building Research Institute
Washington, D. C.*

**PART I**

What the house of the future will be like will be decided by two things: (1) the way people want to live and (2) the ability of the home building industry to meet these desires. Many secondary influences will have a part in rounding out the picture. Certainly there is good reason to believe that the next twenty-five years will see changes in houses far greater than anything seen before. The forces for change, perhaps even revolutionary change, are even now shaping up.

First, let's take a quick flash-back on the last 25 years. Between the depression and World War II some really new ideas were developed: the principles of prefabrication — new concepts of planning and orientation—new kitchen planning—new heating systems—and insulation for new standards of comfort.

Then, after the war, circumstances worked **against** innovation. The need for housing was so great that people would buy almost anything and the capacity of the industry could scarcely meet the demand. F.H.A. and V.A. encouraged minimums in construction. Cities grew without rhyme or reason with little thought for urban problems beyond those of the subdivision itself. One leading magazine this year accused the home building industry of having no new idea other than the split-level house.

This isn't true, of course, but the post-war decade has not stimulated rapid technical progress because it was unnecessary competitively.

### Picture Changing

Now the picture has changed. During the boom years the home building industry **did** grow up into a giant and now comes to the predicated few years of low family formation with a tremendous potential for competition. The stage is set for some bold and constructive new thinking which will decide which parts of the industry will win the big markets ahead for the bumper growth of the '60's and '70's.

Here are some of the over-all factors forcing change in the house itself:

Family living habits will change. We assume a continued rise in standards of living, more leisure time for all income groups, more diversified activities in the home.

The family will expect higher standards of comfort and convenience in houses of all price classes.

Sources of energy will increase and more energy will be used.

New industries will make strong bids to capture major shares of the market for housing products—notably the chemicals, electronics, and metals industries. These industries know how to achieve change through research.

The home building industry proper will move farther and farther into mass production techniques and factory assembly of major components of houses.

Other forces arising from great urban growth will also have marked influence upon the house of the future. The over-riding problem may well be the scarcity of land, forcing us to find ways of disposing of the quickly obsolete under-sized post-war houses which occupy land too good for them.

The mushrooming growth on the perimeters of cities will force rehabilitation of the central city itself, but this will result chiefly in multi-family dwellings.

A big question mark will be the success in solving transportation problems. Americans want to be more and more mobile—in their daily lives, their weekends, and vacations, and in their work opportunities. If transportation facilities of all kinds can keep pace with urban growth, then the single family house on a fair-sized piece of land will remain the favorite. Many families will maintain a second abode for recreation.

### Single Family Homes

On the assumption that the single family dwelling is your favorite subject, and that millions more of them will be built, let's spend the rest of our time discussing them.

(Continued next issue)

*(A presentation made to the Second Annual Technical Conference of the National Warm Air Heating and Air Conditioning Association, in Cleveland, Ohio, May 1st, 1957)*

# NEWS and COMMENT ON ART

## ACQUIRES VELASQUEZ WORK

The M. H. deYoung Museum announces one of the most important new acquisitions in its history, a portrait of Queen Mariana of Spain by Velasquez. The picture has been purchased by the Samuel H. Kress Foundation and added to the Museum's Kress Collection.

Diego Rodriguez de Silva y Velasquez is not only Spain's greatest painter of the 17th Century, but one of the outstanding artists of all time. Born in 1599 in Seville he became in 1623 Court Painter of King Philip the IVth who honored him through continuous patronage and bestowed upon him court functions and finally Knighthood.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, is presenting a varied group of special exhibitions and events for June.

EXHIBITIONS: Photographs—a group of portraits of Bay Region artists, by Harry Redl, and Landscapes in Minatures, by Oliver L. Gagliani. Sculptures by Ossip Zadkine; Landscape Architecture, 1958, prepared by the California Association of Landscape Architects; Paintings: The Mazzon School, Milan, Italy; Through a Collector's Eye—The Ayala and Sam Zacks Collection, and some highlights from Bay Area collections.

SPECIAL EVENTS: Lecture tours of the Museum's current exhibitions each Sunday at 3 o'clock; Wednesday evening, 9 o'clock, discussions on Art, including illustrated talks; and Museum activities include Studio, Art for the Layman, Adventures in Drawing and Painting, and Children's Saturday morning Art Classes.

The Museum is open daily.

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Andre Laherrere, is presenting an exhibition of Paintings, by June Felter and Rene Weaver, to June 20th.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., will offer the following special exhibitions and events during June:

EXHIBITIONS: American Paintings, 1815-1865. Comprising 136 paintings from the celebrated M. and M. Karolik Colleciton in the Museum of Fine Arts, Boston, together with 14 paintings from the private collection of Maxim Karolik brought to San Francisco under the sponorship of Patrons of Art and Music. Sculpture by Ray Rorenzato will also be shown.

ACHENBACH FOUNDATION FOR GRAPHIC ARTS—At the Museum, Pomp and Circumstance, an array of prints commemorating festivals, corteges, and grand ceremonies of past ages. German Impressionism, its reflection in the graphic work of Max Liebermann, Lovis Corinth, Max Slevogt and other painter-engravers will also be shown. On Loan Exhibition at the San Francisco Public Library is Faces and Figures, a group of portrait prints of illustrious men and women in history.

SPECIAL EVENTS: Organ program each Saturday and Sunday at 3 p.m. Starting a new series of Art Classes for children, ages 6-12 will be announced in July.

The Museum is open daily.

## DESIGNER-CRAFTSMEN OF THE WEST, 1957, EXHIBITION

The M. H. deYoung Memorial Museum is presenting during this month a special exhibition entitled "Designer-Craftsmen of the West, 1957" featuring a selection exemplifying the highest standards of artistry in ceramics, printed and handwoven textiles, wood carving, furniture, metalwork and jewelry submitted by craftsmen from California, Oregon, Washington, Arizona, and New Mexico. Entries were creened by three juries in Seattle, Los Angeles and San Francisco.

The exhibition is particularly rich in stoneware and porcelain combining function with beauty of form and adding esthetic appeal with their glazes, technically perfect and subtle in color tones, and their distinctive surface designs.

Twenty-eight Honorary Awards were made in the various crafts by the final jury on the basis of (1) Quality of craftsmanship, in the sense of workmanship; (2) Quality of material used and brought out by the craftsman; (3) Fitness for purpose or use, and (4) A resultant form which integrates purpose, material and workmanship, and is of esthetic appeal.

Composing the final jury were: Hal Painter, President of the Professional Weavers' Association, and crafts designer for the Blind Self-Employment Project; Merry Renk, metal worker and Associate in Design,

Decorative Arts Department, University of California at Berkeley; Herbert Sanders, Professor in Ceramic Art at San Jose State College; Herwin Schaefer, Associate Professor, Decorative Arts Department, Univerisity of California, Berkeley, and Rudolph Schaeffer, Director of the Rudolph Schaeffer School of Design, San Francisco.

The selected works to be shown will be augmented by a stained glass window executed by the Cummings Stained Glass Studios from a composition by John Saccaro, and a mosaic by Louisa Jenkins in addition to the ceramics, fabrics, and other invitational pieces submitted by members of the three juries.

The show will also feature "The San Francisco Room", a living area and garden designed especially for this exhibition by the noted Bay Area Architect John Campbell.

### M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is presenting the following exhibitions and special events during June:

EXHIBITS: The Designer-Craftsman of the West, 1957—A juried exhibition containing Ceramics, Printed and Handwoven Textiles, Wood Carving, Furni-

(See Page 33)

# M. H. DE YOUNG MEMORIAL MUSEUM

**Golden Gate Park San Francisco**

Group Portrait

UBALDO GANDOLFI

Italian, School of Bologna, 1728-1781

The Samuel H. Kress Collection

**SOUTHEAST CORNER 6th & Hope Streets**

**DETAILS OF ENTRANCE**

# LINCOLN SAVINGS and LOAN

NEW OFFICES
Los Angeles

ARCHITECTS:
C. M. DEASY
ROBERT N. EDDY

GENERAL CONTRACTOR:
C. L. PECK CO.

The completion of a new, contemporary office building in the heart of downtown Los Angeles is giving additional impact to the current effort of civic and business leaders to "save downtown Los Angeles."

During the past three decades the number of new, privately owned multi-story structures built in the downtown section of the nation's third largest city could be counted on the fingers of two hands.

This new building is five stories, and basement, and is of steel frame construction with concrete covered steel decking.

Exterior finish is a combination of granite columns, aluminum gridwall with porcelain enamel panels, glass panels and beige-tone granite between the spandrels.

West wall windows are shaded by natural aluminum louvers which are adjustable from within.

Despite the high cost of land in the downtown area, executives of Lincoln Savings and Loan Association accepted architects Deasy and Eddy's recommendation that the structure be set back eight feet from the conventional sidewalk line.

This setback permitted the architects to design a partially covered entrance for the building as well as provide an area for landscaping.

A small flower bed is planted monthly with blooming flowers in season. In addition to providing color around the building's entrance the flower bed has become a "conversational plot" for pedestrians as well as auto passengers and has served as an excellent identification hallmark.

Directly to the left of the building's main entrance is the lobby entrance which leads to two self-operated elevators which serve the other levels of the building.

The entire building is air conditioned. Lighting on the main floor is from luminous ceiling.

Floor covering on the main floor consists of terrazzo which extends from the sidewalk in through the entry.

Patrons areas are carpeted, with vinyl tile being used in the work areas behind the tellers' counters.

The basement level is devoted to an employee cafeteria and lounge, vaults, record storage and air conditioning equipment.

The street level has the executive offices, new accounts department, reception and waiting area and tellers' counters.

The second floor, third and fourth floors are leased to such tenants as the All Year Club of Southern California, steamship lines, investment and brokerage firms.

The fifth floor of the building will serve as a board room for the Association with space being devoted to a Lincoln Museum which will display papers, statuary and other memorabilia of the Lincoln era, and will be open to the public.

To provide a site for the new building, an old hotel built more than a half century ago, had to be demolished.

**TOP VIEW: Customers are afforded every comfort and convenience in this area.**

**LOWER VIEW: Clerks and cashiers work in well lighted, convenient portion on the street floor; other customer services and special transactions are provided for in secluded spots.**

**CLARENDON HALL, Laguna Honda Home . . . San Francisco** *STONE, MULLOY, MARRACCINI & PATTERSON, Architects*

# BUILDING WITH THE WEST!

## ROTHSCHILD, RAFFIN and WEIRICK

### GENERAL CONTRACTORS

**San Francisco, California**

**By FRED W. JONES**

Population growth and higher standards of living are reflected in today's unprecedented building activity throughout the nation. In California the tremendous increase in population has created a demand for more schools, hospitals, churches, shopping centers, office and industrial buildings. To meet this need

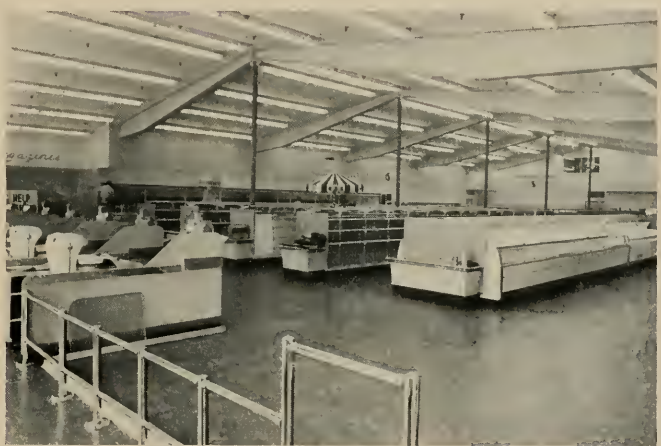
**PARTNERS: L. Don Weirick (center); Bennett L. Raffin (left); and Robert B. Rothschild, Jr.**

San Francisco points with pride to its building industry with its outstanding general contractors, skilled artisans and dependable consultants. One such firm offering all the above qualifications, and more, is Rothschild, Raffin & Weirick, doing a $10,000,000 business in 1956 and certain to better that record this year.

"Building With The West" is a slogan the RR&W organization uses with personal pride because it signifies to a point the part the firm has played and is playing in meeting the construction needs of today. Through many years of actual building experience Rothschild, Raffin & Weirick have developed working methods and procedures that have proved both efficient and economical for their clients. The firm is not only experienced in new building and engineering construction but it has earned deserved recognition for its noteworthy handling of complicated major alteration work.

In its multiplicity of projects, durability, speed, economy and cost are basic considerations. Extra care is taken in coordinating the installation of the many kinds of highly specialized equipment and machinery during and after completion of a building. In selecting its sub-contractors past performance and reliability are mandatory requisites.

The pictures show the wide variety of construction projects this firm has completed or has under way. To list a few: the Silver Avenue Junior High School, San Francisco; Lakeshore Elementary School, San Francisco; Naval Radiological Defense Laboratory, Hunters Point; Clarendon Hall, Laguna Honda Home; buildings for the Pacific Telephone & Telegraph Co., I. Magnin Store, Stanford Shopping Center, Palo



**SAFEWAY STORE**

**Ukiah, California**

**Typical design and construction of a modern food store.**

**Ample space provided for customer parking; interior permits efficient and speedy customer service.**

*WURSTER, BERNARDI & EMMONS, Architects*

Alto; Sommer & Kaufman Stores, San Francisco and Valley Fair; office building for Western Machinery Co.; Stockton State Hospital; De Laval Office and Warehouse, Millsdale; Hillsdale High School; Lake Merced Pumping Station, San Francisco; Hermann Safe Company Office and Warehouse; Crocker-Anglo Bank, Stockton; Dow, Jones & Co. Wall Street Journal Building, San Francisco; Mills High School, Millbrae; Sutro & Co. Office at 460 Montgomery Street; Mendocino County Courthouse, Ukiah.

Many of RR&W's building projects are related to heavy engineering and intricate types of construction such as the Lake Merced Pumping Station, San Francisco; the Naval Radiological Defense Laboratory at Hunters Point; Blast Cleaning Facilities and Rehabilitation Ship Repair Facilities, U. S. Navy, Mare Island; Outlet and Spillway, Cherry Valley Dam; Sewer and Water lines at Preston School of

**TWO MODERN SHOE STORES for SOMMER & KAUFMANN**

**At left is interior of the Market Street Store in San Francisco.**

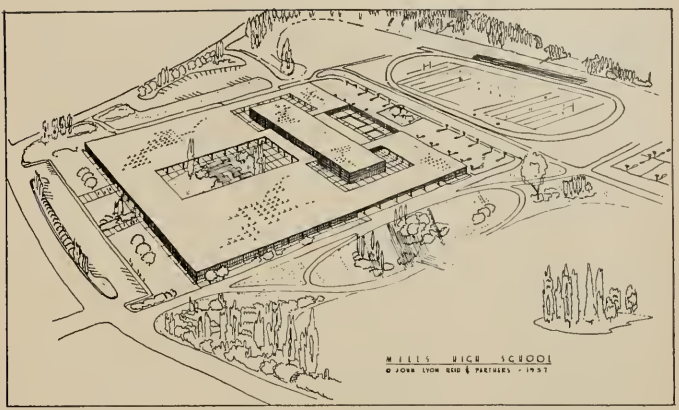
*Designed by ALBERT R. WILLIAMS & ASSOCIATES*

**NEW VALLEY FAIR STORE.**

*MARIO L. GAIDANO, Architect*

**MILLS HIGH SCHOOL**

*JOHN LYON REID, AIA AND PARTNERS, Architects*




Industry, Iona, and various projects involving heavy construction for the U. S. Bureau of Reclamation.

At Hunter's Point the windowless U. S. Naval Radiological Defense Laboratory offered an unusual building situation. There was need for equipment or facilities for transporting form lumber and other concrete materials from one story to another. The building is a 7 story steel frame and concrete structure, minus windows. To meet the problem it was necessary to build a ramp in the escolator shaft which served as a runway for jeeps which, loaded with materials, negotiated the climb from one floor to another, as the work progressed.

The Laboratory was a $7,000,000 War Defense project.

One of the firm's most recent alteration jobs is

**BELOW: Lakeshore Elementary School serving the Park Merced district in San Francisco. BOTTOM view is new De Laval Company plant and offices.**

**REMODELING:**

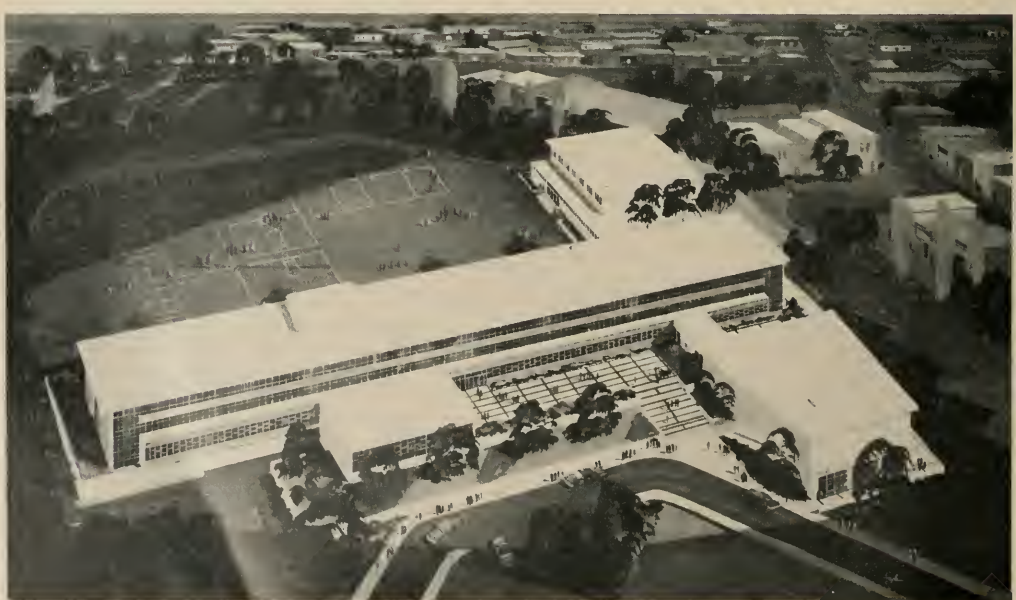
**Bringing up-to-date Sutro & Company's San Froncisco headquarters building.**

*ALBERT F. ROLLER, AIA*
*Architect*

**BELOW:**

**Architectural rendering of the Silver Avenue Jr. High School.**

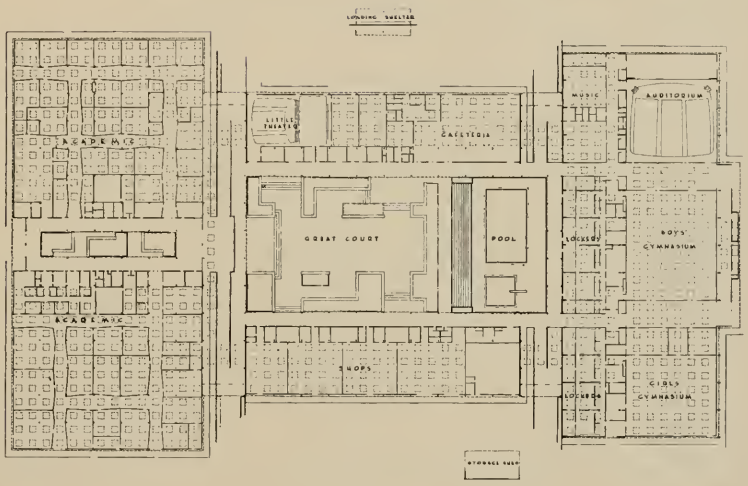
*ALECK L. WILSON, AIA*
*Architect*

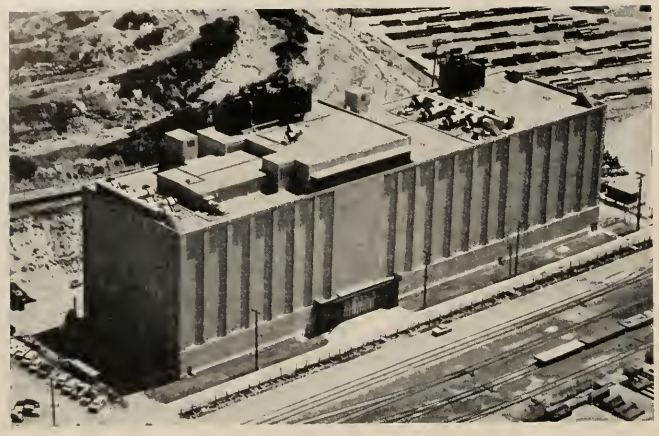


**HILLSDALE HIGH SCHOOL**
**San Mateo, California**

**RIGHT: Planted walk-way between academic buildings; CENTER is graund floor plan; BELOW view of swimming paal and autdaar relaxing area from gymnasium and lacker raams.**

*JOHN LYON REID, AIA & PARTNERS,*
*Architects*

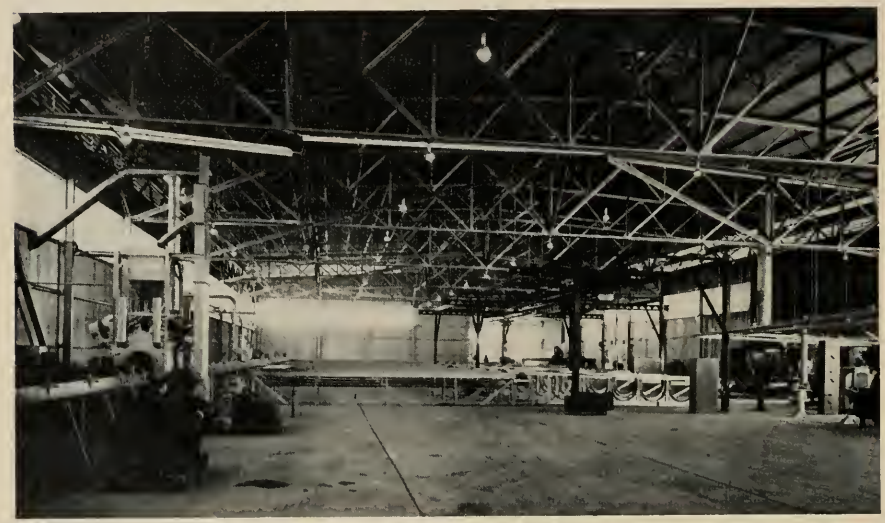




**LEFT: U. S. Naval radiological defense laboratory, San Francisco.**

**BELOW: Interior view of the Pacific Gas & Electric's pipe wrapping plant at Decoto, Alomeda County.**

*LELAND S. ROSENER, JR., Engineer*



*P.G.&E. Engineering Dept.*

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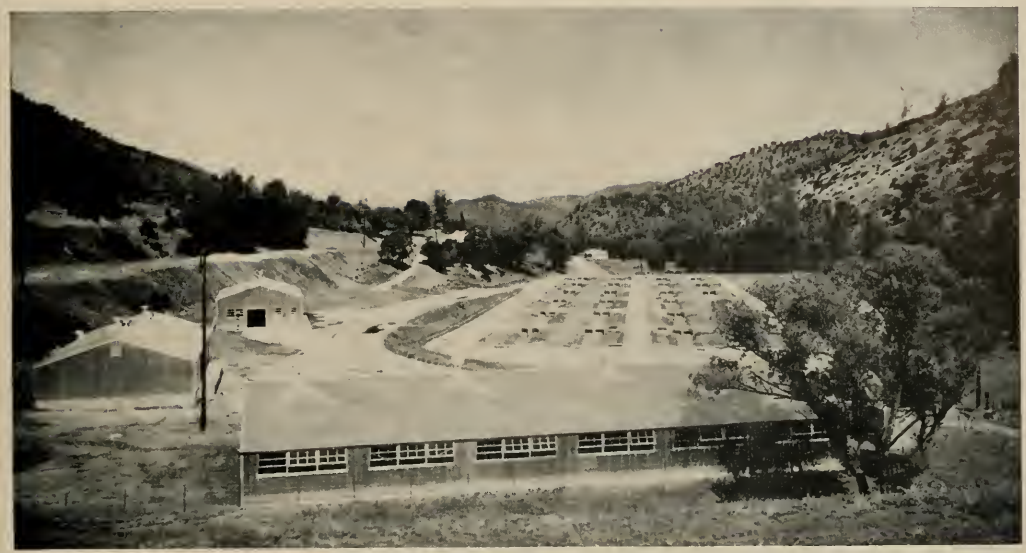

**CALIFORNIA FISH & GAME—Development of the state's natural resources is shown in this large Fish Hatchery built on Maccasin Creek, Tuolumne County, California. Work included site preparation, buildings and ponds.**

*State of California, Division of Architecture, Architects*

the $2,000,000 Clarendon Hall (Ward A and Power Plant) for the City of San Francisco. Some heavy construction work is in the progressive stage here. In building the Maternity Wing and special Diet Laboratory at the San Francisco Hospital there was the problem of shifting patients from wing to wing while workmen were on the job. Despite the handicaps the contractors were able to proceed with little or no interruption.

A building which has brought RR&W much favorable comment is the Hillsdale High School in San Mateo County. Its unusual design, by the way, earned a national award from the American Institute

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ROTHSCHILD, RAFFIN & WEIRICK . . .

**PROGRESS VIEWS**
**CHERRY VALLEY DAM**

**Tuolumne County,**
**California**

**CENTER: Shows "spillway" under construction with outlet to river; LEFT: three views show outlet pipe at the power house site; RIGHT: three views are additional detail of pipe installations.**

*San Francisco Public Utilities*
*Engineering Bureau*


**AUTOMATIC FIRE PROTECTION SYSTEM**

in the new Mills High School, San Mateo, by

**GRINNELL COMPANY OF THE PACIFIC**

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**AND**
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**LEVI STRAUSS**
**WAREHOUSE**

**San Jose, California**

**Illustrating the modern technique of "tilt-up" concrete construction of an industrial building.**

*SCHUBART & FRIEDMAN, Architects*

**W. G. THOMPSON**

***PAINTING CONTRACTOR***

On the Following Jobs:

SILVER AVE. JR. HIGH SCHOOL

WARD A AND CLARENDON HALL, LAGUNA HONDA HOME

LAUNDRY BUILDING, TALMAGE

***VAlencia 6-5000***

of Architects. The school was planned for an enrollment of 1750 students. It is one story, framed and decked with structural steel, divided by movable partitions, lighted by roof lights, heated and cooled by mechanical ventilation and inter-connected by ramps. Fluorescent fixtures are used for artificial illumination. Special research was conducted by the architects and engineers in cooperation with the State Fire Marshall's Office to make the school as nearly a fire-safe building as possible. The result is a completely incombustable fire sprinklered structure.

Total cost of the project was $3,700,000.

**MASONRY WORK**

on the

SAN FRANCISCO HOSPITAL

•

LAGUNA HONDA HOME

•

DOW-JONES BUILDING

By

**WILLIAM A. RAINEY & SON**

323 CLEMENTINA STREET, SAN FRANCISCO

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**LAKE MERCED**
**PUMPING STATION**

**Six electric pumps of a bottery of nine now in use by City of San Francisco.**

*San Francisco Water Department Engineers*

The Mills High School at Millbrae is similar in basic idea to the Hillsdale School, the capacity of which is 1750 pupils and a maximum of 2,000. The Mills School has no fire walls, not even a single fire-rated door and there is no steel fireproofing. One 1-hour rated wall is the only exception to the basic system of partitions and structure required for fire safety.

The I. Magnin Store in the Stanford University Shopping Center presented the problem of meeting a short deadline in spite of inclement weather. The task was successfully accomplished despite all handicaps. The building occupies 60,000 sq. ft., is two stories and basement, has two elevators, floating curve staircase, is completely air conditioned and has gold plumbing fixtures.

The executive personnel of the RR&W organiza-

GAMERSTON & GREEN LUMBER CO.

535 TUNNEL AVENUE
SAN FRANCISCO 24, CALIF.

*We were honored to do the*

**MILL & CABINET WORK**

*on the following*

*Rothschild, Raffin & Weirick*

*projects:*

- Clarendon Hall and Power Plant
- Maternity Bldg., S.F. Hospital
- Sommer & Kaufmann Store, Valley Fair
- Safeway Store, Ukiah
- County Court House, Ukiah
- Mendocino State Hospital
- County Exhibit Building, Ukiah

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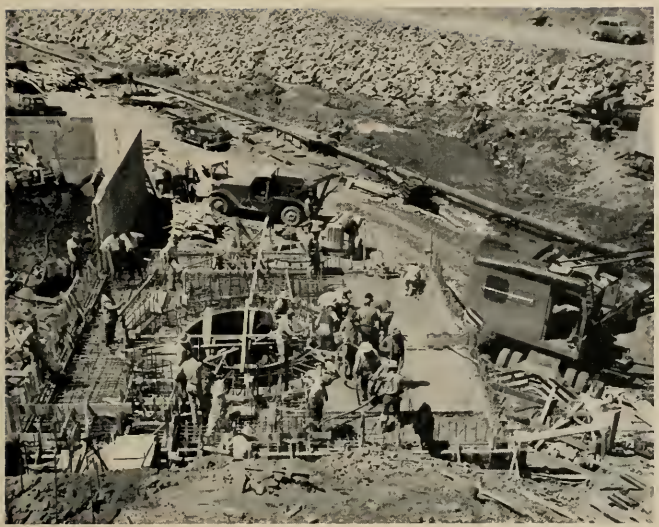

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tion is composed of Robert B. Rothschild, Jr., Bennett L. Raffin and L. Don Weirick. "Bob" Rothschild is the General Manager. He has been active in the construction field since receiving his B.S. Degree in engineering from the University of California in 1929. Before going into business for himself he spent some 15 years in various capacities, including Chief Engineer and Chief Estimator, for MacDonald & Kahn.

Mr. Raffin, Assistant Manager of the firm, is a registered civil engineer and a graduate of Stanford's Engineering School, class of 1938. Prior to joining RR&W he was identified with the American Bridge Co., Chicago; Stone & Webster Engineering Co., Boston, and Barrett & Hilp, San Francisco. During World War II he served as Executive Officer of a Seabee unit in the Pacific.

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---

**BANK BLDG.**

Architect Gates W. Burrows, 1606 Bush St., Santa Ana, is completing drawings for construction of a new bank building in Santa Ana for the Security First National Bank, Los Angeles.

Construction will be frame and stucco, slab floor, composition roof, plastic interior, air conditioning, fluorescent lighting, ceramic tile in restrooms, asphalt tile, toilet rooms, metal sash, and 7800 sq. ft. of area. Estimated cost is $110,000.

---

**ELKS LODGE BLDG.**

Architect Wallace Holm, 321 Webster St., Monterey, is preparing plans and specifications for construction of a Lodge Building in Watsonsville for the B.P.O. Elks No. 1300.

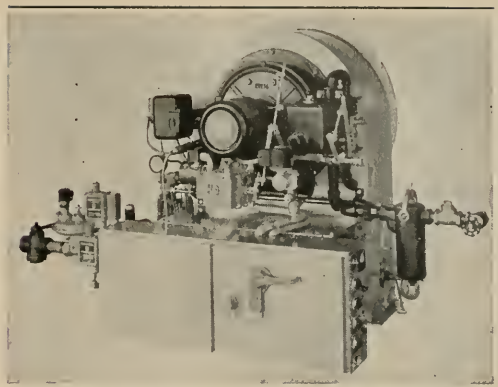
Construction will include plywood floors, vinyl tile, concrete, wood laminated beams, Type 5 construction, wood shake roof and masonry exterior.

---

**PING YUEN HOUSING PROJECT ANNEX**

Architect John S. Bolles, Pier 5, Embarcadero, San Francisco, is preparing preliminary plans for construction of a 12-story annex to the Ping Yuen Chinese housing project in San Francisco, for the Housing Authority of the City and County of San Francisco.

Plans call for a 12-story and a 6-story building, as an annex to the present housing project, at Pacific Avenue, between Powell and Stockton streets. Estimated cost is $2,400,000.

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# OAKLAND MUNICIPAL SWIMMING POOL

The swimming pool, like the barbecue pit and the patio, has become an integral part of the American trend toward outdoor living, and particularly so on the West Coast where many residential tract developers are including a swimming pool as part of today's living. As a matter of fact in the last ten years the number of private pools throughout the nation has skyrocketed from a mere 2,500 to an estimated total of 57,000, with more than 22,000 residential pools being built in 1956.

Aside from the marked trend in residential swimming pools, there is also a sweeping trend towards construction of pools by school boards and municipalities as a means of providing "local" recreation and education.

One of the outstanding municipal installations is the Live Oak Pool in Oakland, California, built a few years ago and dedicated to the men and women who served in the armed forces of the United States. It is one of five large pools operated by the Recreation Department of the City of Oakland, and is located on a site near high schools and is thus used the year around for recreational swimming, by community groups, and for school instruction.

Nationally recognized is a newly designed mechanical circulating system, one of the first of its kind and the most complete of its kind to be installed in any public pool. Engineered by William C. Helms, mechanical draftsman and Bart Troubody, supervisor of construction for the City Recreation Commission, this modern re-circulator and skimmer equipment eliminates excessive use of "make-up water" for scum ridance, and in the first four months of its operation the new pool showed a 60% water saving in contrast to


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each of the other four pools using the conventional circulating system.

Another outstanding feature of this pool is the use of a special jet orifice for the recirculating inlets that sprays the water 5-inches from the pool bottom, directed outward, vertically and sidewise to the main drains. This ingenious jet system keeps the floor clean and free of dirt.

The bathhouse is contemporary in design and is 126 feet long with a brick veneer facade and a 35-foot wide semi-circular clear glass doorway. The handsome exterior is accented by an 8-foot diameter planter bowl.

The Live Oak Pool is 50′ x 100′ overall; 3′-3″ deep on the shallow end, 8′-0″ deep at the opposite end, and 10′-0″ deep in the diving area. The maximum number of persons permitted in the pool at any one time is 600. As an economy in maintenance provision the floor of the pool, finished in concrete, was given three coats of chlorinated rubber base paint as a final finish. The walls are of white cement plaster.

Equipment and facilities are standarded with the diving board of aluminum with a non-skid top. One piece welded ladders are installed on the pool's walls, and eye bolts at the sides take care of hemp safety ropes placed at the 4′ and 5′ depths. There is also an elevated life-guard chair which permits a maximum in safety.

The entire area is floodlighted with four, one-thousand watt lights, two from top of the bathouse and two from the decks of the property line. Provision has been made for lighting when needed for pageants and water shows. There are six under-water flood lights of the wet niche type, with metal, rather than glass, reflectors and removable face grills.

Portable bleachers accommodating up to 600 persons can be set up quickly for competitive events spectators, and a cement wall serves as a wind break at one side of the deck adding to the comfort of spectators and swimmers.

The one story bathhouse contains 3000 sq. ft. of area and is of poured concrete construction. Two wings serve as dressing rooms and join at a central hall where the cashier's stand is installed. After paying the nominal use-fee, a swimmer goes to one of the community dressing rooms, facilities having been provided separately for men and women, and picks a plastic bag off a rail which circles the room. Some 300 bags are suspended from a rail in each dressing room. A bag with the swimmer's day clothes are given an attendant and a pin tag with number is received. This tag must be returned to claim clothes bag at conclusion of the "swim".

The dressing rooms and showers were designed to use a minimum of personnel and for the benefit of a few a number of private dressing stalls have been provided.

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## CALIFORNIA COUNCIL OF ARCHITECTS AIA

William G. Balch, Architect of Los Angeles and President of the California Council of Architects, was the official delegate from California in attendance at the American Institute of Architects centennial convention in Washington, D.C. this month.

Dates for the Annual Convention have been announced for October 2-6 at Hotel del Coronado, San Diego, with preliminary plans being made to care for the largest attendance in the Council's history.

## NORTHERN CALIFORNIA CHAPTER

The Chapter will sponsor an architectural exhibit at the 12th Annual Marin Fair to be held July 3-7, at the Marin Art and Garden Center in Ross.

New members include Elizabeth K. Thompson, Bernard J. Bloch, James W. Farmer, Peter Kirby, Michel A. Marx, Don E. Stover, Robert B. Wright, Robert B. Wong, and Glenn R. Peterson.

## SAN DIEGO CHAPTER

The June meeting was devoted to a general discussion of state legislation and association matters. Announcement was made that the Third Annual Gold Trowel Award competition to honor architects, draftsmen and designers who make the most effective use of lath and plaster is being sponsored by the Plastering

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

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Producers' Council — Northern California Chapter (See Special Page)

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and Lathing Institute in San Diego, with $200 in cash awards to be distributed in two divisions: exterior and interior. Last year's winners were: Architects Richard George Wheeler, interior, and James Bird, exterior.

## WASHINGTON STATE CHAPTER

The June meeting featured a "Field Day" at the Inglewood Country Club in Seattle, with members of The Producers' Council. Baseball, golf, badminton and horseshoes highlighted the day's sports events, with teams from the architects competing with teams from the Council. Prizes were awarded and the event concluded with a barbecue dinner.

The regular business meeting on June 6th, at the Floating Bridge Inn, Mercer Island, featured a program "Around the World with Carl and Gretchen Gould."

There will be no regular meetings during July and August.

## PASADENA CHAPTER

Douglas Mackenzie, Chief Engineer of the Street Department, City of Pasadena, and Cassit Griffin of the Los Angeles County Building Department, were the speakers at the June meeting, discussing the architects' relations with the building and safety departments.

Recent new members include Walter D. Domingos, Jr., Corporate; and Andrew C. Perolio, Jr., Associate.

## SAN FRANCISCO'S ARCHITECTURAL CLUB

Duane G. Anderson, Assistant Cashier, Real Estate Department of the Wells Fargo Bank, was the princi-

(See Page 32)

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## SOCIETY OF AMERICAN MILITARY ENGINEERS—SAN FRANCISCO POST

"The Inter-Continental Ballistics Missile" was the subject of an address at the June meeting by Colonel William E. Leonhard, Commander Western Development Division of Air Research and Development Command at Inglewood, California.

The speaker described various test activities and development in this phase of the guided missile program.

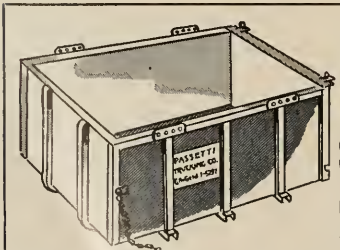
Announcement was made of a Golf Tournament for members on June 28th at the Presidio Golf Club, C. R. Graff in charge of arrangements.

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

"The Golden Gateway—Redevelopment of the San Francisco Produce Market Area," was the subject of the June meeting in the Engineers Club, San Francisco, with Nathaniel A. Owings of the architectural firm of Skidmore, Owings & Merrill, and Paul Oppermann, Director of Planning for San Francisco, the principal speakers. The proposed redevelopment of the San Francisco Produce Market-Ferry Building area is a subject that has been much in the news during the past year and the speakers discussed numerous phases of the proposed traffic flow, parking facilities, foundation conditions, construction costs, and the economic feasibility of the project.

Announcement was made that the Annual SEAONC Picnic would be held on July 13th at the Sonoma Golf and Country Club, with Ray Lundgren serving as general chairman and Ned Clyde chairman of the golf events. Sports events and a steak dinner are highlights of the day's program.

Recent new members include Allen J. Chinn, William E. Edwards, Thomas T. Siebert, Charles F. Uhrhammer. Affiliate Members are George E. Hervert and John A. Trantina; and Junior Member, Howard J. Naftzger.

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## FEMINEERS

The Femineers June meeting was held at the home of Mrs. Charles J. Lindgren with a program of swimming, cards and luncheon. Mesdames Will Adrian, George Burr, Leslie Graham, A. C. Horner, Raymond Lundgren, George Maurer, Louis Riggs, Alfred Sperry, Bernard Villerga, T. D. Wosser, Jr., and Charles Lindgren served as hostesses for the day.

There will be no meeting of the organization during July or August, and the September meeting will be in charge of Mrs. Edward Fulkerson.

## SAN FRANCISCO ENGINEERS SPEAKERS CLUB ELECTS

Brian Lewis was elected president of the San Francisco Engineers Speakers Club for the ensuing year. Other officers elected to serve with Lewis included Jim Clark, 1st vice-president; Harry Moses, 2nd vice-president; and Bob McLaughlin, secretary-treasurer.

Will Popert will continue to serve the Club as coach and critic.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

Ralph S. Littrell, president of Littrell Hardware Line, Inc., was one of two speakers at the June meeting

Barbara Counties Branch, Robert L. Ryum, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Association
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy , c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Cdr. Wm. J. Valentine, USN, President; Col. Edwin M. Eads, USAF, 1st Vice-President; C. R. Graff, 2nd Vice-President; Joseph D. Boitano, Jr., Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA, Donald McCall, Capt. A. P. Gardiner, USN, C. Grant Austin and Rex A. Daddisman. Office of Secy. c/o District Public Works Office, 12th Naval District, San Bruno, California.

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held in the Roger Young Auditorium, Los Angeles, taking as his subject "Improved Economical Timber Fastenings."

Axel V. Pedersen, president of Timber Engineering Company of California, the other speaker, discussed the subject of "Timber Fasteners," with a film relating to engineered timber construction preceding his remarks.

Another highlight of the meeting was the presentation of a scroll to Charles C. Cohan, Real Estate Editor of the Los Angeles Times, who is completing 30 years of service with the Times during which time he has reported Southern California's phenomenal progress.

New members include Frederick C. Brown, Affiliate; Alfred C. Buxton, William J. Fox, Armand L. Kasparian, R. F. Moore, and Warren M. Peckham, all Associate Members; Richard W. Wickert, Junior Member, and Steven Galezewski, Allied Member. The total membership now exceeds 600 and is an all time high.

## AMERICAN SOCIETY OF CIVIL ENGINEERS CONVENTION

Among the many engineers, representing all parts of the world, attending the Annual Spring Convention in Buffalo, N. Y., early this month was Gordon V. Richards, who presented a paper on Penstock Experience and Design Practice of the Pacific Gas & Electric Company.

Following the Buffalo sessions many engineers enjoyed a field trip to the St. Lawrence Seaway and Power Project.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—SAN FRANCISCO

John F. Bonner, Assistant to the Vice-President and Chief Engineer of the Pacific Gas & Electric Company, was the principal speaker at the June meeting, taking as his subject "Joint Development of the Trinity River Project."

The project, involving three dams which will impound approximately 2.8 million acre-feet of water and two tunnels with a total length of nearly 14 miles, is being constructed by the Federal Bureau of Reclamation to conserve and divert the Trinity River waters to the Sacramento Valley for irrigation pur-

(See page 32)


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### FOREST FIBER PRODUCTS MAKES STAFF CHANGES

Henry B. Jacobsen has been named Sales Manager, and Saul Zukerman has been appointed Industrial Sales Representative of the firm's Southern California activities, according to an announcement by F. M. Hughes, General Manager of Forest Fiber Products Company of Forest Grove, Oregon.

Jacobsen, formerly in charge of the Southwest Division with headquarters in Los Angeles, will "coordinate all sales" of the firm from Forest Grove, while Zukerman will work out of the Hollywood office.

### WURSTER, BERNARDI and EMMONS ARCHITECTS EXPAND ASSOCIATES

The San Francisco architectural firm of Wurster, Bernardi and Emmons, 202 Green St., has announced the appointment of George R. Kennady, Geoffrey W. Fairfax, and Don E. Stover, AIA, as Associates to the firm.

Other members of the organization are: William Wlson Wurster, FAIA, Theodore C. Bernardi, AIA, Donn Emmons, AIA, James D. Wickenden, Albert Aronson, AIA, and Willard D. Rand, Jr., AIA.

### JAMES D. MOUNT, AIA RECEIVES PROMOTION

James D. Mount, AIA, architect has been appointed head of the Design and Production Departments in the office of Kegley, Westphall & Arbogast, Architects, 800 So. Robertson Blvd., Los Angeles.

He is a graduate of the University of Southern California, 1950, and is presently serving as chairman of the Speakers Committee of the Southern California Chapter, American Institute of Architects.

### WESTERN HOME BUILDERS ON TOUR OF POLAND

Among eight members of the National Association of Home Builders who are on a tour of Poland to study housing construction, design, and conditions, through an invitation of the Polish goverment and the U.S. State Department, are several representatives of the home building industry of the Pacific Coast.

S. Charles Lee, Hayden-Lee Development Co., of Beverly Hills; Carl Lawrence of Sacramento; and Ray K. Cherry, Hadley-Cherry, Inc., Los Angeles, are making the trip which will include visits to Warsaw, Poznan, Wroclaw, Katovice, Krakow and Lublin.

### WILLIAM L. FRYAR FORMS NEW CONTRACTING FIRM

Formation of the Fryar Construction Co., with offices at 550 So. Fair Oaks Ave., Pasadena, has been announced by William L. Fryar, president. Associated in the firm will be Albert L. Johnson, vice-president and chief estimator, and James B. Boyle, attorney, who will serve as secretary and treasurer.

The new organization will engage in general contracting throughout California, with special emphasis on industrial, commercial and light commercial building projects.

### FORM NEW FIRM OF ARCHITECTS

Architect Robert Kliegman, AIA, and M. Tony Sherman, AIA, have formed an


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association for the practice of architecture, according to a recent announcement.

Offices of the new firm will be located at 8588 Melrose Avenue, Los Angeles.

### ARCHITECTURAL AND ENGINEER OFFICES MERGE

Two well known architectural and engineering offices have joined forces under the name of Nickum, Lamont and Fey, and will maintain offices at 71 Columbia Street, Seattle.

George C. Nickum, managing partner of W. C. Nickum and Sons, and Daniel Lamont, AIA, and Lester Fey, AIA, of Lamont and Fey, will comprise the new firm.

"The association of our oragnizations will be in keeping with our constant aim of better serving the interests of a growing clientele throughout the entire Pacific Northwest," declared G. C. Nickum in announcing the merger.

### LEWIS TRAVELING SCHOLARSHIP MADE

The managing committee of the Lewis Traveling Scholarship has Gary Michael, a fifth-year student in the School of Architecture and Allied Arts at the University of Oregon, as recipient of the 1957 Award.

Michael's fellowship will amount to $2,000, and is to be used for travel in Europe. The award is made through the generosity of Mr. Ion Lewis, a former Portland architect, who left money in trust for this purpose. The award is given biennially, and is managed jointly by the University of Oregon and the American Institute of Architects.

### NEWSPAPER PRESS BUILDING

Architect Robert Crippon, 313 4th St., Woodland, is completing plans and specifications for construction of an addition to the Woodland Daily Democrat building in Woodland, at an estimated cost of $55,000.

The new 1-story facilities will provide a new press room, circulation and news room and a stereotype room. Construction will be concrete block walls, concrete slab floor, steel deck, and will contain 4000 sq. ft. of area.

### ADMINISTRATIVE HEADQUARTERS

Architect Harry T. MacDonald, 3635 W. Slauson Ave., Los Angeles, is completing drawings for construction of a 2-story administrative headquarters in Downey, for the Downey Union High School District.

The building will contain 11,000 sq. ft. of area and will include warehouse facilities, maintenance department, school bus storage and general office space.

### COURTHOUSE AND NEW JAIL

Architect Mitchell Van Bourg & Associates, Claremont Hotel, Berkeley, is preparing plans for construction of a new County Courthouse and Jail to be built in Eureka for the County of Humboldt, in association with Gerald Matson, 537 "G" St., Eureka.

The contemplated construction costing $3,000,000 will be of reinforced concrete construction.

### CHURCH AND EDUCATIONAL

The architectural firm of Orr, Strange & Inslee, 3142 Wilshire Blvd., Los Angeles, is preparing plans and specifications for construction of a masonry educational unit in La Canada for the La Canada Presbyterian Church.

Construction will be composition roofing, concrete slab, metal sash, acoustical tile, forced air heating, plumbing and electrical work.

### FREDERICK H. REIMERS GIVEN ARCHITECT AWARD

Frederick H. Reimers, Architect, San Francisco, was recently presented with a certificate of Award in recognition of distinguished service of a member of the California State Architectural Registration Board by the National Council of Architectual Registration Boards.

In making the Award, the National Council expressed its gratitude and appreciation of the inestimable benefits which have accrued to the architectural profession from architect Reimers' services.

Reimers was appointed to the California Registration Board for three terms of four years each under three governors of the state and has served as Chairman of the Architectural Registration Board.

### NEW AIRPORT TERMINAL

Architects Vhay & Grow, 131 W. 2nd St. Reno, Nevada, are preparing drawings for construction of a new $1,000,000 airport terminal building at the Reno Municipal Airport for the City of Reno.


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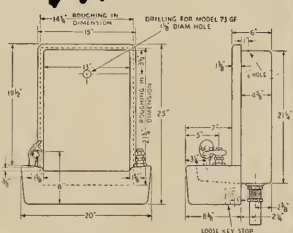

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## A.I.A. ACTIVITIES

(From Page 27)

pal speaker at the June meeting, discussing the various phases of banking as applied to the architectural field.

Members enjoyed an evening of bowling at the Downtown Bowl, under the direction of Joe Tasker, with many taking part in the event.

### OREGON CHAPTER

"Northwest Art in Architecture" was the subject of a recent meeting sponsored by members of Artists Equity of Oregon. The program centered around a slide presentation of work designed especially for architectural situations and uses. Participating in the discussion were Michele Russo, Lew Crutcher, Manuel Izquierdo, and Jim Johanson. Examples of sand sculptures, mosaics and sketches were displayed.

The Tom Lewis Fellowship was awarded to Gary Michael, fifth year student at the University of Oregon School of Architecture and employed by the firm of Wilmsen & Endicott.

### COAST VALLEYS CHAPTER

Examples of work done by Stanford graduate students in architecture featuring a beach house to be located south of Santa Cruz, featured the May meeting the AIA members representing Santa Clara and Santa Cruz counties. This project was sponsored by the Chapter with the problem written by a committee consisting of Frank Tresider, Russ Williams, and George Dueker.

Reports were also heard from members attending the national AIA meetings in Washington.

Among new members welcomed into the Chapter were Marv Knox, Corporate; and Frank Benito, Lois T. Myers, and Robert M. Blunk. John D. Young is a recent transfer from the Northern California Chapter.

### GORDON JOHNSTON APPOINTED TO A.I.A. PRACTICE COMMITTEE

Gordon N. Johnston, Tacoma, Washington, architect, has been appointed a member of The American Institute of Architects Practice Committee for a three year term, according to an announcement by AIA president Leon J. Chatelain, Jr., Washington, D. C.

Johnston is a member of the Southwest Washington Chapter, A.I.A.

## WITH THE ENGINEERS

(From page 29)

poses. It will create a power potential of well over one-third of a million kilowatts which the PG&E is offering to develop in cooperation with the Federal Government.

### AMERICAN SOCIETY OF MECHANICAL ENGINEERS

The 21st national conference of the Applied Mechanics Division of the American Society of Mechanical Engineers was held on the Berkeley campus of the University of California this month, sponsored by the University's Division of Engineering Design.

The three day meeting was devoted to technical sessions relating to new engineering developments in the field of elasticity; plasticity; creep; thermal stresses and buckling; photoelectricity; vibrations; impact; shells; and fluid mechanics.

The annual banquet was highlighted by a talk by Dr. Joseph Kaplin, chairman of the U.S. National Committee for the IGY and professor of physics at UCLA on the International Geophysical Year.

### WORLD CONFERENCE ON PRESTRESSED CONCRETE

A world conference on prestressed concrete will be held in San Francisco, July 20 through August 2nd, under sponsorship of the University of California. Prof. T. Y. Lin of the University of California is chairman of the conference general arrangements committee.

The conference will feature some 50 technical papers on materials and techniques, on precast prestressed bridges and buildings, on prestressed wharves,


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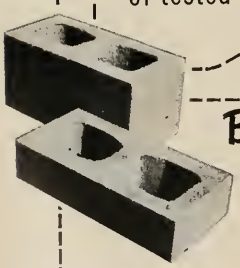

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piles, and pavements, on thin shells and slabs, on research, design, and construction in various countries.

General conference headquarters will be at the Fairmont Hotel, San Francisco.

## NEWS & COMMENT ON ART

(From Page 7)

ture, Metalwork, and Jewelry; and "The San Francisco Room," a living area designed to demonstrate collaboration between architect, artist, and craftsman. Ceramics, by Hajime Kato; Art Directors Exhibition of Advertising Art—9th Annual; and Nature Into Art—an exhibition demonstrating how natural forms through human ingenuity and taste can be imbued with a character, a haunting beauty, that may be defined as Art, including Sea Flora, Wood Forms and Japanese Fish Prints.

SPECIAL EVENTS: All classes in Art Enjoyment will be recessed until July 6th, when the Painting Workshop for Amateurs will be resumed, also Art Classes for the Children will resume on July 6.

The Museum is open daily.

### CHARLES O. MATCHAM, FAIA, EXPANDS ORGANIZATION

Charles O. Matcham, F.A.I.A., architect of Los Angeles, has announced the reorganization of his firm to be known as Charles O. Matcham, Stewart S. Granger and Associates.

Matcham, practicing architect in Southern California for the past 20 years, will continue to be the senior member of the firm, with Stewart S. Granger, AIA, who has been with Matcham's office for the past year, as a partner. Granger has been engaged in the practice of architecture in Los Angeles since 1946 after working in both Chicago and Fort Worth, Texas.

CHARLES O. MATCHAM
F.A.I.A. Architect

Both partners are active in the Southern California Chapter of the American Institute of Architects, in which Matcham was recently elected a member of the College of Fellows for his public service and service to the Institute. He is currently a member of the Los Angeles County Museum's Board of Governors and for many years has taken an active interest in civic affairs.

Granger is a director of the Southern California Chapter and Matcham is a past director and president. Last year Matcham was chairman of the Institute's national convention held in Los Angeles.

Associates in the firm will be Ira Tron, A.I.A., and Edla Muir, A.I.A. Tron practiced in New York City before coming to California in 1946. Miss Muir had her own office in Los Angeles and in the state of Washington for four years, prior to her returning to Los Angeles to become associated with Matcham.

The firm will continue its general practice of architecture, engineering, and planning, mostly for institutional, residential, and commercial projects, at its Los Angeles office, 1258 West 1st St.

Among jobs currently on the drafting boards are the Grover Cleveland High School in the San Fernando Valley, a multi-deck parking garage for the County in the Civic Center, and alterations and additions to the Los Angeles Turf Club buildings.

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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**ENGINEERING STRUCTURAL FAILURES. By Rolt Hammond, A.C.G.I., A.M.I.C.E. Philosophical Library Inc. 15 E. 40th Street, New York 16. Price $12.00.**

Structural failure is an enormously important aspect of civil engineering which has been somewhat neglected by writers in this field. The author of this book has set out to provide a useful survey of both the causes and the results of failures in a variety of examples over a century of engineering, including earthworks, dams, harbor works, buildings, bridges, and tunnels. He also considers the special problems of failure due to vibration, to earthquake and subsidence, and in welded structures or light alloys.

The final chapter brings out many of the lessons of such failures, making the special point that advances in one branch of engineering may greatly influence work in other branches; also reviews modern methods of testing materials.

**ERIC MENDELSOHN, 2nd-edition. By Arnold Whittick. Dodge Books, 119 W. 40th Street, New York 18. Price $9.85.**

A definite study and evaluation of the creative life of one of the outstanding architects of the 20th Century. This book traces Mendelsohn's architectural developments through his designs of commercial, religious, industrial and residential structures throughout the world and presents his later work, much of which was done in this country.

Over 175 photographs, sketches, plans, and elevations, depicting 75 of his projects, strikingly illustrate the architect's guiding principle that the essential character of a structure is determined by its purpose and its environment and that the design is the positive expression of that character.

**PERSPECTIVE—a new system for designers. By Jay Doblin. Whitney Publications Inc., 18 E. 50th St., New York 22. Price $5.00.**

This is not just another text on the subject, but a unique development created by a practicing designer for his own use and expanded for use in the classroom, which makes a contribution in four areas:

For designers—it is the first system developed to solve the kind of drawing problem encountered by product designers; For Students—It is a complete exposition of perspective drawing; For Draftsmen—It helps develop the freehand skill that any good student of perspective must have; and For All Who Use Perspective—This book makes a fundamental contribution to the theory of perspective, bringing up points that are not covered by any other text.

## NEW CATALOGUES AVAILABLE

***Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.***

**Fire resistive ratings for metal lath.** Technical bulletin covers numerous fire resistive ratings for metal lath and plaster used in conjunction with steel and wood construction (AIA File 20-B-1); ratings relative to columns, steel beams, girders, trusses, floors, partitions, and walls; developed in chart-like fashion, the construction section indicates clearly the appropriate materials required to establish each accompanying rating. Free copy write DEPT-A&E, Metal Lath Mfg's. Assn., Engineers Bldg., Cleveland 14, Ohio.

**Hollow steel doors.** Revised 12-page booklet contains up-to-date specifications and photos on panel and flush type steel doors, as well as complete details on hardware and accessories. Free copy write DEPT-A&E, Steelcraft Mfg. Co., Inc., 9017 Blue Ash Rd., Rossmoyne, Ohio.

**Gas fired commercial and industrial heating equipment.** New comprehensive catalog covers line of gas fired commercial and industrial heating equipment, including suspended gas unit heaters, both fan and blower types; capacities from 25,000 to 300,000 BTU; floor models; two series of duct furnaces for

system capacities from 50,000 to several million BTU; and the horizontal furnace in sizes from 50,000 to 125,000 BTU; complete specifications, construction detail and large easy to read dimension drawings and tables. Free copy write DEPT·A&E, Reznor Mfg. Co., Mercer, Pa.

**Ornamental iron.** New 12-page catalog of standard ornamental iron; gives step by step story of ornamental iron to fit any pocketbook and customer requirement; many illustrations of ideal uses; specifications. Copy available DEPT·A&E, Tennessee Fabricating Co., 1490 Grimes St., Memphis, Tenn.

**Unit fire detectors.** New 4-page illustrated brochure on unit fire detectors describes hermetically-sealed units which operate on unique rate-compensation principle which causes detector to actuate at its selected protection level regardless of how slow or rapidly the surrounding temperature rises; describes various horizontal and vertical models available, states physical and electrical specifications, listings and approvals, suggestions for various types of installations; sets of graphs compare response temperatures for various types of detectors under dynamic ambient conditions. Copy available free, write DEPT·A&E, Fenwal Inc., Ashland, Mass.

**Radiation protection.** A new brochure (AIA File No. 37-E), four pages and well illustrated, describes radiation protection material for X-ray and radioisotope applications including lead insulated lath, blocks, panels and screens as well as lead doors, pass boxes, light-proof shades and protective windows; descriptions of control windows, louvers and fume hoods; for use in diversified fields as architectural, mechanical, metallurgical and nuclear engineering. Free copy write, DEPT·A&E, Ameray Corpn., Route 46, Kenvil, New Jersey.

**Rolling gymstands.** New 16-page catalog describes advantages of rolling grandstands for space saving and economical gymnasium seating; shows typical installations and describes four types: 1) standard model, 2) recessed model, 3) movable model, 4) special balcony model; full color, architectural specifications and planning aids—floor plans, space requirements opened and closed, seating capacity; accessories. Copy free write DEPT·A&E, Wayne Iron Works, 147 N. Pembroke Ave., Wayne, Penna.

**Lighting problems**—home constructions. New 96-page full color "Style Book" contains 359 different fixture numbers and descriptions, over 200 just introduced ranging from traditional to contemporary in feeling; for commercial and residential application; series of sketches show lighting installed in over 100 indoor and outdoor settings—sloping ceilings, exposed beams, multi-purpose rooms and furniture difficulties answered by setting illustrations; cross reference chart serves as convenient guide for chosing right fixture for a specific location or special lighting situation. Free copy write DEPT·A&E, Lightolier, Inc., Jersey City 5, N. J.

"tuck.aire" furnaces. New, comprehensive Catalog, (AIA File No. 30-C-43, 30-B-1, 30-D-1, 30-F-1) containing detailed data on models, installation, specifications; well illustrated with photographs and drawings showing uses and types; complete engineering data; a valuable addition to the office of any architect, engineer, contractor, or buyer of heating units. Free copy, write DEPT·A&E, Tuck-Aire Furnace Company, 2045 Evans Ave., San Francisco, California.


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We need your plans only a couple of days, then promptly returned.

**LeROY CONSTRUCTION SERVICES**
143 THIRD STREET • SAN FRANCISCO, 3 • SUtter 1-8361

# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performence or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$165.00 up (according to class of work).
Face Brick—Per 1 M laid—$250.00 and up (according to class of work).
Brick Steps—$2.00 lin. ft. & up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

Clear Glazed—
2 x 6 x 12 Furring ..... $1.75 per sq. ft.
4 x 6 x 12 Partition ..... 2.00 per sq. ft.
4 x 6 x 12 Double Faced Partition ..... 2.25 per sq. ft.
For colored gleze add ..... .30 per sq. ft.

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**
8x5½x12-inches, per M ..... $139.50
6x5½x12-inches, per M ..... 105.00
4x5½x12-inches, per M ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M ..... $146.75
12x12x3-inches, per M ..... 156.85
12x12x4-inches, per M ..... 177.10
12x12x6-inches, per M ..... 235.30
F.O.B. Plant

### BUILDING PAPER & FELTS—

1 ply per 1000 ft. roll ..... $5.30
2 ply per 1000 ft. roll ..... 7.80
3 ply per 1000 ft. roll ..... 9.70
Brownskin, Standard 500 ft. roll ..... 6.85
Sisalkraft, reinforced, 500 ft. roll ..... 8.50

**Sheathing Papers—**
Asphalt sheathing, 15-lb. roll ..... $2.70
30-lb. roll ..... 3.70
Dampcourse, 216-ft. roll ..... 2.95
Blue Plasterboard, 60-lb. roll ..... 5.10

**Felt Papers—**
Deadening felt, ¾-lb., 50-ft. roll ..... $4.30
Deadening felt, 1-lb. ..... 5.05
Asphalt roofing, 15-lbs. ..... 2.70
Asphalt roofing, 30-lbs. ..... 3.70

**Roofing Papers—**
Standard Grade, 108-ft. roll, Light ..... $2.50
Smooth Surface, Medium ..... 2.90
Heavy ..... 3.40
M. S. Extra Heavy ..... 3.95

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| Sand— | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**
Common (all brands, paper sacks), Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl. ..... 4.14
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L. ..... 2%
Trinity White, Medusa White, Calaveras White ..... 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20
Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | --- | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ⅛-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $12.00 per square and up.
Hot coating work, $5.00 per square & up.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

### ELECTRIC WIRING—$20 to $25 per outlet

for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.25 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**
**Oak Flooring—T & G—Unfin.—**

| | 33/32x2¼ $ | ½x2 $ | ⅜x2 $ | ¼x2 $ |
|---|---|---|---|---|
| Clear Otd., White | 425 | 405 | | |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standerd |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 33/32 x 2¼ | 390.00 | 381.00 |
| 33/32 x 2¾ | 375.00 | 355.00 |
| 33/32 x 3¼ | 395.00 | 375.00 |
| 33/32 x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**
33/32 x 2¼ First Grade ..... $390.00
33/32 x 2¼ 2nd Grade ..... 365.00
33/32 x 2¼ 2nd & Btr. Grade ..... 375.00
33/32 x 2¼ 3rd Grade ..... 240.00
33/32 x 3¼ 3rd & Btr. Jtd. EM ..... 380.00
33/32 x 3½ 2nd & Btr. Jtd. EM ..... 390.00
33/32 x 2¼ First Grade ..... 400.00
33/32 x 2¼ 2nd Grade ..... 360.00
33/32 x 2¼ 3rd Grade ..... 320.00
Floor Layer Wage $2.83 per hr.

### GLASS—

Single Strength Window Glass ..... $ .30 per □ ft.
Double Strength Window Glass ..... .45 per □ ft.
Plate Glass, ¼ polished to 75 ..... 1.60 per □ ft.
75 to 100 ..... 1.74 per □ ft.
¼ in. Polished Wire Plate Glass ..... 2.50 per □ ft.
¼ in. Rgh. Wire Glass ..... .80 per □ ft.
⅛ in. Obscure Glass ..... .55 per □ ft.
7/32 in. Obscure Glass ..... .70 per □ ft.
⅛ in. Heat Absorbing Obscure ..... .54 per □ ft.
7/32 in. Heat Aborbing Wire ..... .72 per □ ft.
⅛ in. Ribbed ..... .55 per □ ft.
7/32 in. Ribbed ..... .75 per □ ft.
⅛ in. Rough ..... .55 per □ ft.
7/32 in. Rough ..... .75 per □ ft.
Glazing of above additional $.15 to ..... .30 per □ ft.
Glass Blocks, set in place ..... 3.50 per □ ft.

### HEATING—Installed

**Furnaces—Gas Fired**
Floor Furnace, 25,000 BTU ..... $42.00- 80.00
35,000 BTU ..... 47.00- 87.00
45,000 BTU ..... 55.00- 95.00
Automatic Control, Add ..... 39.00- 45.00
Dual Wall Furnaces, 25,000 BTU ..... 72.00-134.00
35,000 BTU ..... 149.00
45,000 BTU ..... 161.00
With Automatic Control, Add ..... 45.00-161.00
Unit Heaters, 50,000 BTU ..... 215.00
Gravity Furnace, 65,000 BTU ..... 210.00
Forced Air Furnace, 75,000 BTU ..... 342.00

**Water Heaters—5-year guarantee**
With Thermostat Control,
20 gal. capacity ..... 96.00
30 gal. capacity ..... 112.00
40 gal. capacity ..... 135.00

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. B & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry—8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-515 ..... $120.00
½-inch, 4.0x8.0-515 ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plysform ..... 160.00

**Shingles** (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $35 per M to above
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .80 |
| Three-coat work | per yard | 1.20 |
| Cold water painting | per yard | .35 |
| Whitewashing | per yard | .20 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | Wholesale Raw | Boiled |
|---|---|---|
| Light iron drums—per gal. | $2.28 | $2.34 |
| 5-gallon cans—per gal. | 2.40 | 2.46 |
| 1-gallon cans—each | 2.52 | 2.58 |
| Quart cans—each | .71 | .72 |
| Pint cans—each | .38 | .39 |
| ½-pint cans—each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | Pure Gum Spirits |
|---|---|
| Light iron drums—per gal. | $1.65 |
| 5-gallon cans—per gal. | 1.76 |
| 1-gallon cans—each | 1.88 |
| Quart cans—each | .54 |
| Pint cans—each | .31 |
| ½-pint cans—each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $..... | $..... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.50 lineal foot |
| 8-inch | 3.00 lineal foot |
| 10-inch | 4.00 lineal foot |
| 12-inch | 5.00 lineal foot |
| Installation | 50c to $1.50 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.50 |
| Keene cement on metal lath | 4.00 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.50 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.50 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.50 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.50 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.00 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.00 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid ½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .26
Standard, 6-in. ..... .46
Standard, 8-in. ..... .66
Standard, 12 in. ..... 1.30
Standard, 24-in. ..... 5.41

Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless, (unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. ..... 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.95 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.95 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.70 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜"...$ .25 - $ .35 sq. ft. Light shades slightly higher.
Cork Tile—$.60 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each | $ .17 |

| Kraftile: Per square foot | Small Lots | Large Lots |
|---|---|---|
| Patio Tile—Niles Red | | |
| 12 x 12 x ⅞-inch, plain | $ .28 | $ .253 |
| 6 x 12 x ⅞-inch, plain | .295 | .265 |
| 6 x 6 x ⅞-inch, plain | .32 | .287 |

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
**Face Brick**
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
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THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

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PACIFIC CEMENT & AGGREGATES INC.
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**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
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PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
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Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

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BIRKENWALD
Portland: 310 N.W. 5th Ave.

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ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

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WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

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Orange, Calif., 533 W. Collins Ave.

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ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

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LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010

LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158

PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

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FIRE PROTECTION PRODUCTS CO.
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San Francisco: 551 Mission St., EX 2-0432

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San Francisco: Harrison at 9th St., UN 1-744
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KRAFTILE CO.
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JOSAM PACIFIC COMPANY
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BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700

JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185

DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718

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HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678

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RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682

LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980

MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700

MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516

OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030

BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383

PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639

RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.

STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611

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ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377

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Santa Rosa: 1665 Sebastopol Rd., SR 6354

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Oakland: 940 Arlington Ave., OL 2-6000

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San Francisco: 289 Tehama St., JU 6-6252

L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332

MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454

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San Francisco: 1375 Howard St., HE 1-0140

SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937

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San Francisco: 390 First St., GA 1-2211
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SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

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CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832

ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157

MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad

ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901

STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

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JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365

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San Francisco: 6000-3rd St., VA 6-5024

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BASALT ROCK CO.
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San Francisco: 765 Folsom St., EX 2-3143
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San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHNERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

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ANCHOR ROOFING CO.
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San Francisco: 1400 Egbert Ave., MI 7-2173
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San Francisco: 930 Innes Ave., VA 4-3261

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Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

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Oakland: 13th & Wood Sts., GL 2-0805

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San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

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STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
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BARNARD ENGINEERING CO.
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COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
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Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
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Emeryville: 4300 Eastshore Highway, OL 3-1717
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ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
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PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

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GLADDING McBEAN & CO.
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Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

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NATIONAL TILE & TERAZZO CO.
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San Francisco: 200 Bush St., YU 2-0200
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O. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

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Oakland: 384 Grand Ave., GL 2-0451

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CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE 1-1345

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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
**(Revised March, 1957)**

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**RANGER STATION & PUBLIC INFORMATION CENTER,** Joaquin Miller Park, Oakland, Alameda county. City of Oakland, Oakland, owner. 1-Story frame construction, locker room in head rangers office; public room with exhibition facilities, toilet rooms, private and public—$36,888. ARCHITECT: M. Morris Gladdis, 632 Grand Ave., Oakland. GENERAL CONTRACTOR: Fred F. Chopin, 1990 Mountain Blvd., Oakland.

**SERVICE BLDG., UNIVERSITY CALIFORNIA,** Berkeley, Alameda county. Board of Regents, UC, Berkeley, owner. 2-Story concrete and structural steel, prefab steel, filler panels, asbestos tile, some ceramic tile, acoustical tile ceilings, refrigeration, hot water heating, forced air ventilating system, automatic sprinklers; 101,035 sq. ft. total area; floors 18x244 ft.; library facilities, work area, loading dock—$1,209,333. ARCHITECT: John Lyon Reid & Partners, 1019 Market St., San Francisco. STRUCTURAL ENGINEER: Dr. Alexander G. Taries, 1019 Market St., San Francisco. MECHANICAL ENGINEER: Keller & Gannon, 126 Post St., San Francisco. GENERAL CONTRACTOR: Jacks & Irvine, 620 Market St., San Francisco.

**MOFFETT HOSPITAL, UC HOSPITAL AND MEDICAL CENTER,** San Francisco. Board of Regents, UC, Berkeley, owner. Completion of the 13th floor of the present building in San Francisco—$460,498. GENERAL CONTRACTOR: Beacon Const. Co., 1745 Filbert St., San Francisco.

**EL PUEBLO ELEMENTARY SCHOOL,** addition, Pittsburg, Contra Costa county. Pittsburg Unified School District, owner. 1-Story wing, concrete floors and walls, steel beams, wood roof, tile wainscoting, toilets, acoustical tile ceilings, aluminum windows, fencing; 15,600 sq. ft. area providing facilities for administration, health, kindergarten, toilet rooms, covered walks—$346,814. ARCHITECT: Phillip D. Tomasello, 605 Washington St., San Francisco. STRUCTURAL ENGINEER: Kellberg-Parquet & Maurer, 417 Market St., San Francisco. ELECTRICAL ENGINEER: Smith & Garthorne, 1122 Market St., San Fransicco. MECHANICAL ENGINEER: J. Marion Thomas, 333 Kearny St., San Fransicco. GENERAL CONTRACTOR: Western Empire Const. Co., P.O. Box 516, Concord.

**NEW BANK & OFFICES,** San Francisco. American Trust Co., San Francisco, owner. 12-Story concrete and steel construction; 125x90 ft. area. ARCHITECT: Myer & Evers, 268 Market St., San Francico. GENERAL CONTRACTOR: Cahill Const. Co., 350 Sansome St., San Francisco.

**STEAM PLANT,** Stanford University, Palo Alto, Santa Clara county. Board of Trustees, Stanford University, Palo Alto, owner. Construction of a new steam plant

building—$190,774. ARCHITECT: Spencer & Ambrose, 251 Kearny St., San Francisco. CONSULTING ENGINEER: G. M. Simpson, 507 Howard St., San Francico. GENERAL CONTRACTOR: Wells P. Goodenough, 890 San Antonio St., Mt. View.

**ELEMENTARY SCHOOL ADD'N,** Aptos, Santa Cruz County. Aptos School District, Aptos, owner. Facilities to provide 3 classrooms, kindergarten and toilets —$84,640. ARCHITECT: Lynn R. Duckering, 202 Lincoln St., Santa Cruz. GENERAL CONTRACTOR: G. W. Davis, 2600 E. Lake Ave., Watsonville.

**COURTHOUSE ADD'N,** Trinity county, Weaverville. Trinity County Board of Supervisors, Weaverville, owner. Construction of an addition to the County Courthouse—$61,270. ARCHITECT: Albert W. Kahl, 1120 7th Ave., San Mateo. GENERAL CONTRACTOR: Riverman & Sons, 2032 N.E., 48th, Portland, Oregon.

**PARISH HALL,** Weberstown, Stockton, San Joaquin county. St. Andrew's Lutheran Church, Stockton, owner. 1-Story wood frame with laminated wood arches—$63,300. ARCHITECT: Donald Francis Haines, 2015 Pacific St., Stockton. GENERAL CONTRACTOR: Craft Const. Co., 2812 Sanguinetti Lane, Stockton.

**VETERANS MEMORIAL BLDG.,** Sebastopol, Sonoma county. Sonoma County Board of Supervisors, Santa Rosa, owner. 1-Story frame and stucco construction with some structural steel; facilities for auditorium, meeting rooms, and kitchen—$318,486. ARCHITECT: C. A. Caulkins, Jr., Rosenberg Bldg., Santa Rosa. GENERAL CONTRACTOR: David C. Walker Const., P.O. Box 191, Cloverdale.

**ELECTRONICS MFG. PLANT,** San Carlos, San Mateo county. Eitel-McCullough, Inc., San Bruno, owner. 1 and 2 Story steel frame, composition roofing, wood piling for concrete footings, tilt-up walls; 150,000 sq. ft. area—$1,596,770. ARCHITECT: Vincent G. Raney, 233 Post St., San Francisco. GENERAL CONTRACTOR: Williams & Burrows, 500 Harbor Road, Belmont.

**PHOTOGRAPHY SHOP,** San Jose, Santa Clara county. Valley Fair Shopping Center, San Jose, owner. Complete facilities for photographic shop — $13,697. ARCHITECT: Higgins & Root, 220 Meridian Rd., San Jose. GENERAL CONTRACTOR: Alken Const. Co., 333 Phelan Ave., San Jose.

**SCHOOL STORAGE & MAINTENANCE BLDG.,** High School, Carmichael, Sacramento county. San Juan High School District, Carmichael, owner. 1-Story concrete tilt-up construction, concrete floors—$137,458. ARCHITECT: Charles F. Dean, 1521 I St., Sacramento. GENERAL CONTRACTOR: Arthur Odman, P.O. Box 147, Fair Oaks.

**WAREHOUSE,** Monrovia, Los Angeles county. Baptistine Mouren-Laurens, Los Angeles, owner. 1-Story brick warehouse, composition roofing, skylights, tapered steel beams, steel sash, sliding doors, concrete slab floor, pipe columns, toilet rooms; 13,800 sq. ft. in area. ENGINEER: Richard F. Carter, 14022 Hawes St., Whittier. GENERAL CONTRACTOR: Donald T. Kitts, Inc., 9514 Raviller Dr., Downey.

**FURNITURE STORE,** Stockton, San Joaquin county. Hunefeld, Stockton, owner. 1-Story concrete block construction, considerable plate glass, some parking facilities—$52,443. ARCHITECT: Clowdsley & Whipple, Exchange Bldg., Stockton. GENERAL CONTRACTOR. T. E. Williamson, Inc., 1220 San Juan Ave.. Stockton.

**KINGS BEACH SCHOOL,** Lake Tahoe, El Dorado county. Tahoe-Truckee Union School District, Lake Tahoe, owner. Work comprises construction of an addition to the present facilities, multi-purpose room—$133,300. ARCHITECT: Gordon Stafford, 1024½ J St., Sacramento. GENERAL CONTRACTOR: W. A. Schmidt, 3560 San Ysidro Way, Sacramento.

**LAW BUILDING,** Anaheim, Orange county. Fritz Goossens, Garden Grove, and Donald R. Stoneman of Inglewood, owners. Brick walls, slab floor, composition roofing, terrazzo work, acoustic plaster, interior plaster walls, asphalt tile, electrical, plumbing, steel sash, air conditioning, mosaic tile; contains municipal court and general lease areas, judge's chambers, jury room, district attorney's office, restrooms, and parking for 42 cars—$100,000. ARCHITECT: MacBird and Couverly (Wm. L. Couverly, architect), 2218 N. Main St., Santa Ana. GENERAL CONTRACTOR: V. J. Long, 1828 E. Broadway, Anaheim.

**WOOD ELEMENTARY SCHOOL,** Richmond, Contra Costa county. Richmond Elementary School District, Richmond, owner. 1-Story frame construction, relocating 12 portable classrooms and buildings, and construction of a new play-


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grounds—$71,741. ARCHITECT: Schmidts, Hardman & Wong, 1300 University Ave., Berkeley. GENERAL CONTRACTOR: Carl Overaa Co., 529 16th St., Richmond.

**COUNTY ADMINISTRATION BLDG.,** Pittsburg, Contra Costa county, County of Contra Costa, Martinez, owner. Reinforced concrete tilt-up construction, some veneer; 20,000 sq. ft. of floor space—$94,956. ARCHITECT: Beland & Gianelli, 1221 Monterey St., Vallejo. GENERAL CONTRACTOR: Ace Builders, 1702 N. Parkside Dr., Pittburg.

**ELEMENTARY SCHOOL BLDG.,** Sonora, Tuolumne county. Sonora Elementary School District, Sonora, owner. Work comprises construction of building to include 4 classrooms, toilet roooms—$76,790.000. ARCHITECT: Ernst & Lloyd (John C. Lloyd, architect), 2132 N. El Dorado St., Stockton. STRUCTURAL ENGINEER: A. W. Sauer, 142 N. California St., Stockton. GENERAL CONTRACTOR: R. W. McClintock, 795 E. Jackson St., Sonora.

**COMMUNICATIONS CENTER,** Stockton, San Joaquin county. U. S. Navy, District Public Works Office, San Bruno, owner. Communications center buillding with barracks buildings and mess facilities; reinforced concrete on pile foundation, tar and gravel roof, floor slab on beams across piles, earth work, site clearance, plumbing, heating, electrical work, air conditioning, paving, sidewalks, drains, painting, planting—$1,250,000. GENERAL CONTRACTOR: Carvers Const. Co., 1870 Lucerne Ave., Stockton.

**HOSPITAL ADD'N,** Community Hospital, Fresno. Fresno Community Hospital District, Fresno, owner. 4 floors and basement, steel frame and reinforced concrete, 3 elevators; 128,000 sq. ft. of area; facilities for 300 beds—$3,319,025. ARCHITECT: Alistair Simpson, 64 N. Fulton St., Fresno. GENERAL CONTRACTOR: Harris Const. Co., P.O. Box 109, Fresno.

**STORE BLDG.,** Los Angeles. Kawasaki Co., Los Angeles, owner. Concrete block walls, built-up roofing, slab floor, skylights, pipe columns, plate glass door, stone work, toilets, gas heating, electrical, sheet metal—$30,000. ARCHITECT: Y. Tom Makino, 3200 W. Jefferson Blvd., Los Angeles. GENERAL CONTRACTOR: Kawasaki Co.

**ELEMENTARY SCHOOL,** Sharp Park, San Mateo county. Laguna Salada Elementary School District, Sharp Park, owner. New elementary school plant to include 10 classrooms, 2 kindergartens, multipurpose and administration rooms, kitchen, toilets—$383,900. ARCHITECT: Masten, Hurd & Dick, 526 Powell St., San Francisco. GENERAL CONTRACTOR: Hub-Pacific Builders, 1077 Johnson Lane, Menlo Park.

**CHURCH,** Menlo Park, San Mateo county. Lutheran Church, San Mateo, owner. 2-Story wood frame, laminated wood beams and steel beams in basement, stucco, concrete block exterior, shake roof—$107,000. ARCHITECT: Neal Lindstrom, 637 Oak Grove, Menlo Park. GENERAL CONTRACTOR: Thompson Bros., 2088 University Ave., East Palo Alto.


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# IN THE NEWS

## WALNUT CREEK MEDICAL CENTER

Architects Aitken & Collins, 2102 Vine St., Berkeley, have completed drawings for construction of a new Medical Center in Walnut Creek at an estimated cost of $80,000.

The building will be of 1-story, wood frame construction.

## MASONIC HALL FOR WOODLAND

Architect Robert Crippon, 313 4th St., Woodland, is working on drawings for construction of a 1-story block wall, concrete slab floor, glue laminated arches and beams, Masonic Hall in Woodland for the Woodland Masonic organization.

Facilities will include a social hall and lodge rooms. The building will contain approximately 6500 sq. ft. of area.

## SCHOOL BONDS APPROVED

Voters of the Tahoe-Truckee Unified School District, Auburn, approved the issurance and sale of $1,700,000 in School Bonds with funds to be used in the construction of new schools and making improvements to present buildings in the district.

A major portion of the school district is in Placer county, however a part overlaps into Nevada county.

## ANIMAL HUSBANDRY DAIRY CATTLE UNIT

Architect Albert Hunter, Jr. Ashby at 7th St., Berkeley, has completed drawings for construction of a new animal husbandry and dairy cattle unit on the Davis campus of the University of California.

The building will be structural steel, steel frame, and aluminum exterior.

## JUNIOR COLLEGE VOCATIONAL ART

Architects Johnson & Commetta, O. C. Johnson, architect, 3516 MacDonald Ave., Richmond, have completed drawings for construction of a $300,000 vocational arts building at Contra Costa Jr. College in Richmond.

The building will be 1-story with monitor-type roof design, light steel frame, built-up roofing, concrete slab floors, and will contain some 20,000 sq. ft. of area.

## TELEPHONE BUILDING SITE PURCHASED

The Pacific Telephone & Telegraph Company has announced the purchase of a site in Sonora, California, and plans building a $844,000 long distance center on the property.

Construction will be steel and reinforced concrete.

## COURTHOUSE REMODEL

Architects Horn & Mortland, 2616 Merced St., Fresno, are preparing drawings for construction of a $400,000 remodeling program for the third floor of the Madera County Courthouse in Madera.

## METHODIST CHURCH FOR STOCKTON

Architect Carlton Steiner, 2941 Telegraph Ave., Berkeley, is preparing draw-

ings for construction of a fellowship hall and classrooms for the Central Methodist Church of Stockton.

The building, which will also serve as a Church, will be 1-story concrete block construction, concrete beams, tar and gravel roof.

### WINE SAMPLING HOUSE

Architects Hale & Jacobson, Highway 9, Mission San Jose, are working on drawings for construction of a wine sampling house for the Weibel Vineyards near Warm Springs, Amador county.

The building costing $20,000, will be of 1-story construction, Spanish style, heavy timbers and title roof.

### ARCHITECT SELECTED

Architect Paul James Huston, 663 Comper St., Palo Alto, has been commissioned by the City of Mt. View to draft plans and specifications for construction of a new library building to be built on Franklin Street between Merch and Church streets in Mt. View.

Estimated cost of the project is $160,000.

### MOSAIC TILE OPENS SANTA CLARA OFFICE

The Mosaic Tile Company is expanding its operation in the San Francisco Bay area with opening of a new showroom and warehouse in Santa Clara, according to A. E. Guerra, in charge of the Northeast area of the Zanesville, Ohio, manufacturing firm.

Don Baird, who has been working out of the San Francisco office, will be in charge of the Santa Clara office. West Coast manufacturing plants of the firm are located in El Segundo, and Corona, California.

### ANTELOPE VALLEY HIGH SCHOOL CONSTRUCTION

Paul W. Speer, Inc., general contractors, have commenced construction on a new $150,000 library for the Antelope Valley Joint Union High School, Lancaster.

The building was designed by architect H. L. Gogerty, 3123 W. 8th St., Los Angeles, and includes a spacious outdoor terrace. It will contain 11,000 sq. ft. of area.

### U. S. GYPSUM CORP. WINS HIGH AWARD

Awards for the most outstanding building products literature and space advertising prepared for architects during the past year were presented at the Spring Meeting of the Producers' Council, Inc., Washington, D.C., with two of the top awards going to the U. S. Gypsum Corp.

The competition is co-sponsored by the American Institute of Architects and the Producers' Council. Presentation of Certificate of Exceptional Merit was made at the AIA Centennial Celebration Convention.

### BRISTOL COMPANY OPENS LOS ANGELES BRANCH

The Bristol Company of Waterbury, Connecticut, has just opened a new branch factory and repair laboratory in Los Angeles, as part of a general expansion program, according to H. E. Beane, vice president.

J. W. Peckham, who has been with Bristol's west coast district for many years,


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will be manager of the new facilities which will provide faster deliveries, repairs and a better service for West Coast users.

### CUSTOM ENGINEERED SOUND SYSTEM BY STROMBERG-CARLSON

A new "custom engineered" sound system designed especially for motel and hotel use has been introduced by Stromberg-Carlson, a division of General Dynamics Corporation.

Since every installation presents its own special problems, the basic unit is so engineered from standard components that it can be quickly and inexpensively tailored to the individual requirements of each establishment.

The system provides high fidelity music in every room, radio or record; serves as an emergency alarm system which sounds in every room even if loud speakers are turned off, operates as a two-way communication in drive in registration areas, and also as a maid or personnel locating service.

Systems are offered under a lease plan which includes installation and service, thus eliminating a large capital outlay.

### NEW TELEPHONE BUILDING

George Fryberg of Burlingame will build a new 2-story building at 22nd and Telegraph in Oakland at a cost of $800,000 to be used as a new facility for the Pacific Telephone and Telegraph Company.

The new building will contain 72,000 sq. ft. of area and the work will also include 60,000 sq. ft. of paved area for automobile parking.

### INTERNATIONAL DESIGN CONFERENCE IN ASPEN

The seventh annual session of the International Design Conference will be held June 23-29, at Aspen, Colorado, according to George D. Culler, chairman of the executive committee. The theme for this year's conference will be: "Design and Human Values."

Among the prominent speakers and panelists who will discuss various aspects of "Design and Human Values" is Robert Anshen of Anshen and Allen, San Francisco.

The IDC is an oragnization of designers, architects, art directors, educators, corporation executives and consumers. Among members of the executive committee are: Saul Bass of Hollywood; Harry L. Baum, Jr., of Denver; and Garrett Eckbo of Los Angeles.

### SWIMMING POOL HEATING CHART

An easy to use, comprehensive chart developed to accurately determine the heating requirements of pools from residential size to pools up to 18,000 sq. ft. is being offered by Laars-Engineers, designers and manufacturers of swimming pool heaters.

Seventeen completely packaged models, all completely automatic and completely equipped with Laars built-in control systems, carry AGA and ASME Code approval together with the Laars 5-year guarantee.

Complete information and the sizing chart for use in design and construction may be secured from Laars-Engineers, 13246 Saticoy St., North Hollywood, California.

### DFPA REORGANIZES

With a rearrangement of regional boundaries and plans for the addition of eight new field promotion representatives, the Douglas Fir Plywood Association, Tacoma, Washington, has completed a year-long reorganization and expansion of its field promotion department, according to Joseph Weston, Field Promotion Director.

Regional managers are now headquartered in New York, Washington, D. C.,


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Atlanta, Georgia; Dallas, Texas; Cleveland, Ohio; Chicago, Ill.; Minneapolis, Minn., and on the West Coast Richard E. Anderson will have charge of the Los Angeles office; Earl Pennington, San Francisco, and Stanley A. Taylor, Assistant Field Promotion Director, Tacoma, Washington.

The Field Promotion Department was established to provide field level assistance to plywood producers, sellers, and users, and now has a total of 34 staff members.

### NEW FACTORY FOR CRANE HOIST

The Crane Hoist Engineering and Manufacturing Company, Emeryville, are contemplating the construction of new factory facilities in San Leandro, according to recent company announcement.

The new plant will comprise 12,500 sq. ft. of area, and will be of tapered steel beam truss construction.

### CHARLES C. WRIGHT LECTURES AT USC

Charles C. Wright, president of Oilwell Research, Inc., Long Beach, is now on the teaching staff of the University of Southern California. He is teaching a night course entitled, "Drilling Mud Technology" to a group of graduate students working for advanced degrees in Petroleum Engineering.

### INDUSTRIAL BUILDING

Engineer C. F. Ewald, and Robert O'Hanlon, 3607 W. Magnolia Blvd., Burbank, are preparing drawings for construction of a concrete block industrial building in Burbank for Lucas & Sheridan.

The building will contain 7,000 sq. ft. of area; composition roofing, laminated wood trusses, steel security sash, wall heaters, concrete slab, asphalt title, plate glass, electrical and plumbing; and will include an office and shop areas.

### RODDIS PLYWOOD OPEN NEW CALIFORNIA PLANT

The new 3.7 million dollar "man made" board plant of the Roddis Plywood Corpn., in Arcata, was put into production recently. The new facilities will turn out 15 million square feet of new product manufactured by a patented process developed by German scientists.

### CLYDE F. HEASTON APPOINTED L.O.F. GLASS ENGINEER

Clyde F. Heaston has been assigned as an industrial engineer with the Pacific Coast Division of the L.O.F. Glass Fibers Company, Los Angeles, California, according to John A. Morgan, vice president and general manager of the division.

Heaston is a member of the board of directors of the Southeast Chapter of the Building Contractors Association.

### WAREHOUSE AND OFFICE BUILDING

New headquarters for Davidson Bros., one of the largest independently owned automatic merchandising firms in the country, have been completed in Los Angeles.

The 20,000 sq. ft. facility, designed by H. Herbert Sregman, architect, 5011 San Vincente Blvd., includes general offices, warehouse, maintenance, and commercial kitchen for commissary food preparation.

### JOSEPH W. SMITH APPOINTED SISALKRAFT SALES MANAGER

Joseph W. Smith, for the past sixteen years manager of the South Atlantic District of Sisalkraft Corp., has been appointed Assistant Sales Manager of the Western Division with headquarters in San Francisco, according to R. S. Youngberg, western manager of the firm.

It was also announced that many new facilities were being installed at the company's Tracy, California, manufacturing plant, to meet the growing demands from western builders.

### FIBERBOARD PAPER ELECTS NEW OFFICERS

William L. Keady was chosen president at the annual meeting of stockholders of Fiberboard Paper Products Corp., held in San Francisco.

Other officers elected included: Wakefield Baker, William H. Lowe, Donald Maclean, Robert W. Miller, Joseph A. Moore, Jr., Silas H. Palmer, Herman Phleger, Porter Sesnon, and Emmett G. Solomon, directors. Bernard P. Altick; E. W. Carey, Edward W. Fish, Russell R. Galloway, Andrew S. Halley, J. F. Havard, C. Cort Majors, M. E. Sanford, William K. Spence, and William H. Young were named vice presidents of the firm.

J. Stewart Mitchell was named secretary; J. Finley Thompson, controller; Victor H. Erickson, treasurer.

### DAVE RANDALL NAMED INSTITUTE PRESIDENT

Dave Randall has been elected president of the Lathing and Plastering Institute of Northern California, succeeding Joe Witt.

A native San Franciscan, Randall completed his apprenticeship after war service and became a journeyman lather in 1948. He is serving his second year as Business


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Agent for lathers local where he also served as member of the executive committee for seven years.

### JOHN W. BALLENTINE LOS ANGELES REP.

John W. Ballentine has been assigned as an aircraft field representative in the Los Angeles area for the L.O.F. Glass Fibers Company, according to an announcement by John A. Morgan, vice-president and general manager of the Pacific Coast Division.

He was formerly associated with the Douglas Aircraft Company as an Aerodynamics engineer.

### NEW NORTH STREET ELEMENTARY SCHOOL

Architect J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa, is preparing drawings for construction of the new North Street Elementary School in Cloverdale for the Cloverdale Union Elementary School District.

The new facilities will include eight classrooms, kindergarten, and toilets.

### UNION ASSEMBLY HALL PLANNED

Design Associates, Inc., 2090 Willow Pass Road, Concord, are working on drawings for construction of an Assembly Hall building in Concord for the Electrical Workers Union Local.

Facilities will include assembly hall, offices, several small shops and toilet facilities. The building will be one story, 26,800 sq. ft. of area, concrete block construction with glue laminated beams, built-up roof and jalousie windows.

### BOY SCOUT MEETING HALL PLEASANT HILLS

Architect Charles Dennis, 2233 Contra Costa Highway, Pleasant Hills, is completing working drawings for construction of a Boy Scout Meeting Hall in Pleasant Hills.

The building will be one story, wood frame construction with approximately 500 sq. ft. of area; shake roof, rustic exterior and dry walls.

### LUCIE STERN MEMORIAL HALL

The architectural firm of Spencer & Ambrose, 251 Kearney Street, San Francisco, is working on drawings for construction of two new wings to the Lucie Stern Memorial Hall on the Stanford University campus, Palo Alto, for the Stanford University Board of Trustees. Estimated cost is $500,000.


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*Indicates Alternate Months

# "I have had lots of troubles"

AFTER YEARS OF WORK, the doorway to literary success finally opened. She managed to get her novel, *Moods*, published.

It promptly flopped.

Undaunted, she wrote a second novel, which instantly turned out to be the rage of 1869. Businessmen, lawyers, housewives, everybody read and talked about *Little Women*.

Fortune had finally smiled on Louisa May Alcott. Twenty years had passed between her first writings and *Little Women*—years of privation, struggle, pain. She had worked as a maid, as a paid companion, had nearly lost her life as a Civil War nurse, had once come close to suicide.

Now world-famous, her family secure, she would write many more books. And people would love them. For, as she said, "I have had lots of troubles; so I write jolly tales."

In those words, spoke the kind of unvarnished courage without which this country would be a far poorer place. Poorer not only by Louisa May Alcott's stories, but by the accomplishments of millions. For it is human courage and character that have made America wealthy and strong. And have made America's Savings Bonds one of the world's finest investments.

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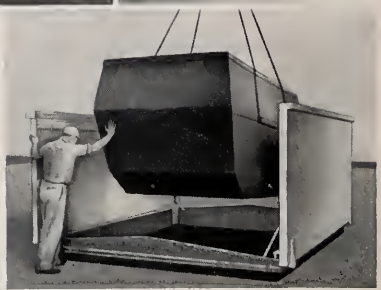

Quality in a roof scuttle can be measured in many ways . . . by its ease of operation—the safety it affords the user—the virtually indefinite trouble free service it gives the building owner. Bilco scuttles offer your clients "floating" cover action, one hand operation and the finest of materials and workmanship—at a price of little more if any, than ordinary access doors. For lasting satisfaction specify Bilco—the measure of roof scuttle quality for more than 20 years. A size for every requirement—see our catalog in Sweets.

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Vol. 210 No. 1

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# EDITORIAL NOTES

## NATIONAL SECURITY FIRST

The nation's security, of course, must come first in any consideration of the National Budget, and there is no question but that we can't, as individuals and as a united people, take any chances with matters which may mean life or death of the nation. To pursue any other course would invite disaster to the American way of life, and to us as a nation of great people.

But, all too often, government officials and sometimes our elected representatives in Congress and state legislatures, cite the urgency of "national security" as justification for rebuffing any attempt to eliminate waste and duplication.

President Eisenhower has asserted that the American people must make a choice between government economy and adequate national security.

The choice, if one is to be made, should be to conduct government on an economic basis and thereby assure adequate national security at a price the public can afford. Seems like there is no particular point in "securing" a nation bankrupt morally and financially.

* * *

*A survey of 1000 companies, recently, showed that fringe benefit costs—payments by employers for pensions, vacations, social security, etc. — averaged $819.00 per employee in 1955, an increase of $99 since 1953.*

* * *

## FEDERAL SCHOOL AID

Business and business organizations are demonstrating continued awareness that it takes constructive community steps to lick local school needs and complicated allied problems.

How to beat the seemingly never ending rise in construction costs and at the same time provide adequate classroom facilities may be one of the worries confronting your community, and if so you may be interested in some phases of the proposed federal school construction aid bill now ready for House consideration in Congress.

The records show that Washington, Oregon and California business, industry and other taxable sources would contribute some $37,470,000 in taxes into the federal government's school construction program, and that the maximum allowance available for allocation back to the three states for actual construction of classroom facilities would be only $23,325,000.

Thus, some $14,145,000 paid by local taxpayers towards support of this national school construction program would go into building classrooms in areas other than that of the taxpayer.

Put in terms of classroom facilities, and based upon a construction cost of $30,000 per classroom, the people of Washington will contribute 29 classrooms to some other state; taxpayers of Oregon will donate 2 classrooms to some out of state area, and the people of California will contribute 441 classrooms for other than California school children use. Some states, such as North Carolina for example, will receive some 253 more classrooms from the program than the people of the state will pay for in taxes. Even the state of Texas, noted for its greatness, oil wells and vast wealth will receive 134 classrooms donated to Texas school children by taxpayers of some other state.

It shouldn't be too difficult for any one accustomed to the use of a pen or pencil, and even remotely acquainted with the ordinary numeral system of figuring, to realize that taxpayers of Washington, Oregon and California, already faced with many acute problems of a tremendous industrial and commercial development with its corresponding rapid population growth, will be paying for support of a program providing facilities for school children in states other than where the taxes are collected.

It will be well to remember that the school-tax dollar, already deflated more than 50 per cent by today's inflation, can be further reduced by the proposed federal school construction "give away" program. Adequate school classroom facilities may continue to be a major problem for some time to come, therefore increased and not decreased school construction dollars are needed.

* * *

*Next to profits and taxes, one of the most timetaking executive problems is speechmaking.*

* * *

## CHANGING TIMES

In our youth, an individual who spent money with reckless abandon was referred to "spending money like a drunken sailor." We are not "up" on today's colloquialism describing such a situation, but if the proposed budget of $71.8-billion were approved by members of Congress the Federal Government would spend:

$5,983,916,667 per month
1,380,903,846 per week
196,731,506 per day
8,197,147 per hour
136,619 per minute
2,279 per second

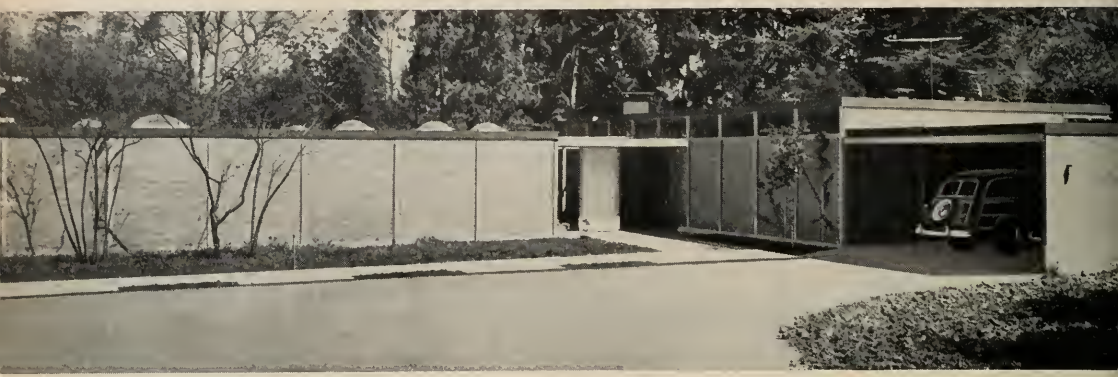
In just the time it has taken you to read this, the government would have spent approximately $90,000 in money collected in the form of taxes, and we'll bet our grandchildren come up with some expression that will put the "sailor" to shame.

# ROTHSCHILD RAFFIN AND WEIRICK...

## General Contractors

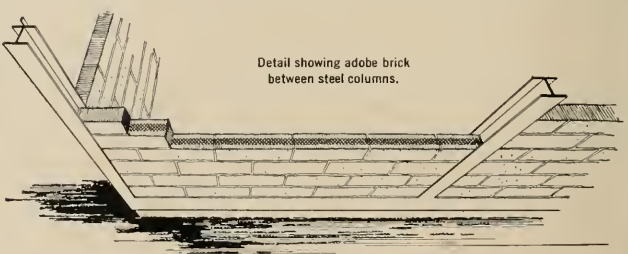
San Francisco

*"Building with the West"*



*This Atherton, California, home combines the native qualities of both steel and adobe brick—the strength and versatility of steel and the insulating ability of adobe. The owner has a home that is attractive, permanent, fire and termite resistive, and requires the barest minimum of upkeep. Construction cost, in 1955, was $11.34 per square foot of living area. The home is arranged in a bi-nuclear design with living and sleeping quarters separated by a glass entry.*

*The speed and ease of steel construction was an important plus-factor since the home was built during the heavy winter rains of 1955-56. Steel framing members were welded together at the plant and delivered to the site where San Jose Steel Co., Inc., erected the complete steel frame in just two days. The roof was placed during the third day and interior work continued uninterrupted by outside conditions.*

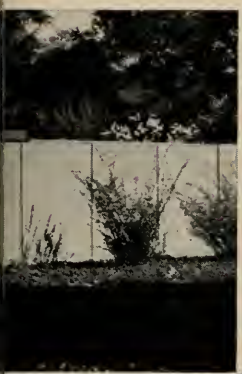



*The adobe bricks, 3½" x 4" x 16", were fitted directly into the H-section steel columns. Expanded metal lath was used on every other course of brick to give greater rigidity to the wall. Since the adobe bricks formed non-bearing walls, only a single rather than the usual double course of brick was required. United States Steel vertical columns used were 4"H13#; horizontal beams were 6"WF15.5#. The module was 6 feet, 9 inches.*

**ARCHITECTS & ENGINEERS:** Write for your free copy of *"New Horizons for Home Building...With Steel."* This new booklet contains case histories of architect-designed steel homes and information on building codes, specification data and advice on the maintenance and painting of steel. Write: Architects & Engineers Service, Room 1260, United States Steel Corporation, Columbia-Geneva Steel Division, 120 Montgomery Street, San Francisco 6.

*News of another steel home from United States Steel*

# Teaching old materials new tricks...with steel



The use of adobe brick, one of the oldest home building materials, and steel, one of the newest, combine in this house to achieve a new level of originality in residential architecture.

This unique combination of adobe and steel resulted in both artistic and practical advantages. Unrestricted by conventional building methods, this 3,474 square-foot home is designed for indoor-outdoor integration and maximum design flexibility.

*The United States Steel shapes used in this home are sold by steel jobbers in your locality.*
*Designer: Don Knorr, Knorr Associates, San Francisco*
*Engineer: John Brown, San Francisco*
*Builder: Whelan Construction Co. Redwood City*

*Constructed as a speculative home, steel gave the contractor the rare opportunity of building the house so that it was adaptable to the demands of the buyer. Steel framing eliminates the need for load-bearing walls, which allows the new owner to adapt the interior to his individual needs. Walls in steel-frame homes can be free-standing storage cabinets or even drapes can be used to divide interior space.*

*stern homes of the future are now building with steel...* **UNITED STATES STEEL**

# NEWS and COMMENT ON ART

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Andre Laherrere, is presenting an exhibition of Paintings by Barbara Haas and Jean Halpert-Ryden, during July.

The Gallery is located on the fourth floor of the building.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction Dr. Grace L. McCann Morley, announces a number of special exhibits and events for July, including:

**Exhibitions:** Young American Painters, a group of work organized by the Museum of Modern Art of New York City; American Jewelry and Related Objects, organized by the Smithsonian Institution; Sculpture, by Jacques Lipchitz; outstanding Museum Collection items; Through the Collector's Eye, featuring the Ayala and Sam Zocks Collection and some highlights from Bay Area collections; Scultpure, by Ossip Zadkine; and Landscape Architecture—1958, an exhibition prepared by the California Association of Landscape Architects.

**Special Events:** Lecture Tours based upon current exhibitions each Sunday at 3 o'clock; Wednesday evening discussions on art, 9 o'clock. Studio Art for the Layman, Adventures in Drawing and Painting and the Children's Saturday morning Art Classes will recess for the summer and be resumed in September.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, which is under the direction of Thomas Carr Howe, Jr., has arranged the following special exhibits and events for July:

**Exhibitions:** Paintings and Drawings by Richard Davis; 19th Century French Paintings from the Museum Collection, an exhibition augmented by notable examples from private collections; Scultpure by Ray Lorenzato.

The ACHENBACH FOUNDATION for GRAPHIC ARTS will feature: German Impressionism, its reflection in the graphic work of Max Liebermann, Lovis Corinth, Max Slevogt and other painter-engravers; Wenzel Hollar—1607-1677, an exhibition commemorating the 350th anniversary of the birth of the most ubiquitous printmaker in 17th century Europe.

**Special Events:** Organ program each Saturday and Sunday afternoon at 3 p.m.; Drawing and Painting from the Model, each Wednesday and Friday morning at 9 o'clock; a six weeks series, starting July 13th, of free art history lectures; art classes for children, between ages 6-13, Tuesday and Thursday mornings at 10 o'clock.

The Museum is open daily.

## OAKLAND ART MUSEUM

The Oakland Art Museum, S.W. corner of the Municipal Auditorium at 10th and Fallon streets, is offering the following special exhibitions and events during July:

**Exhibitions:** Emanuel Walter Collection, a selection of paintings done before 1900 by California artists and some related European and American paintings of the same era, from the Emanuel Walter Collection of the San Francisco Art Association; Hayward Art Association, a juried exhibition by members of this group; and Peter Shoemaker and David Lemon, Oil paintings by Peter Shoemaker, Scultpure by David Lemon in a two-man show.

**Special Events:** Children's Summer Classes, ages 6-8, in mask making, clay, paper mache, and painting, Tuesday through Friday at 10 a.m.; ages 9-12, Oil and Watercolor, clay, mosaics, Tuesday through Friday 9:30 a.m.; and for the Teens, informal sketch group, Tuesday, Wednesday, Thursday at 1:30 p.m.

The Museum is open 10 a.m. to 5 p.m. daily.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is offering a special group of summer exhibitions, and special events during July.

**Exhibitions:** Painting in America—The Story of 450 Years. One of the most important surveys of American painting ever assembled, containing over 100 outstanding paintings from 60 museums, institutions and, private collections. Early American Prints, a second section devoted to graphic arts in America from the earliest period to the present containing 116 important prints; and Designer-Craftsmen of the West, 1957, a juried exhibition containing Ceramics, Printed and Handwoven Textiles, Wood Carving, Furniture, Metalwork, and Jewelry, and "The San Francisco Room," a living area designed to demonstrate collaboration between architect, artist, and craftsman.

**Events:** Classes in Art Enjoyment—painting work-

shop for amateurs, exercises in oil painting, and seminars in the history of art. Children classes include picture making, art and nature, and the Art Club.

The Museum is open daily.

---

### ART EXHIBIT AT CALIFORNIA FAIR

Art once again will prove to be a mainstay at the California State Fair and Exposition, August 28-September 8, in Sacramento, reports Earl Lee Kelly, director of arts and women's activities.

Entrants will vie for a total of $11,385 in cash premium awards with a staff of art experts announced as jurors, including:

Oils, water colors, and prints—Maria von Ridelstein, San Francisco; Hans Burkhardt, Los Angeles; Ejnar Hansen, Pasadena; Karl Kasten, Lafayette, and Gordon W. Gilkey, Oregon State College, Corvallis, Oregon.

Sculpture—Merrell Gage, Santa Monica, and Henri Marie-Rose, San Francisco.

Ceramics, enameling, metalwork, jewelry, and textiles—Albert H. King, Los Angeles; Carlton Ball, Whittier; Harry A. Osaki, Pasadena; Dr. Carl With, UC at Los Angeles; Eleanor Forbes, San Francisco, and Russ Brown, Carmel.

Student art—Harold M. Ward, Sacramento; Joseph Knowles, Santa Barbara; and Will Frates, Hayward.

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# SAN FRANCISCO MUSEUM OF ART

## WAR MEMORIAL BUILDING CIVIC CENTER

**THE MAENADS**

**1955**

**Bronze, 29" high**

**by**

**OSSIP ZADKINE**

**Included in the exhibition: lent by the artist.**

**The present exhibition of the work of Ossip Zadkine is the first representative collection of this artist's work ever assembled for showing in this country. In gouaches, drawings, and sculptures, Ossip Zadkine has pressed cubism into expressive forms which, however, never lose their reference to recognizable objects. His primary concern is the human anatomy; his method is uniquely appropriate for mythological subjects and for portraits.**

# THE HUMAN SIDE OF SPECIFICATIONS WRITING

By KENNETH M. WILSON, Chief Electrical & Mechanical Engineering Division, E. F. Klingler & Associates, Inc., Architects & Engineers, Eau Claire, Wisconsin

## PART I

Near the City of Detroit, Michigan, on a three hundred and thirty acre site, can be found the newly constructed Technical Development Center of the General Motors Company. The twenty-five or more buildings comprising this Center are spread in clean geometric pattern over beautifully landscaped grounds, creating a veritable beauty spot in an area where belching furnaces, teeming harbors, and milling traffic mark the location as one of the nation's great industrial centers. Inside these modern buildings is concentrated the brain power that makes General Motors one of the industrial giants of our time.

Built primarily for use of research and production engineers, artists and stylists, from whose fertile imagination is born the twentieth century miracle that we call automobiles, this research center is a monumental tribute to another kind of engineer, and another kind of artist. These other kinds of engineers and artists are the consulting engineers and architects whose job it was to create the most convenient and comfortable buildings in the world in which to work, and to combine all of this convenience and comfort into a kind of beauty that testifies to the advance of science in our own generation.

### CONTINUOUS PROGRESS

The profession of architecture is older than Christianity. An early architectural specification can be found in the Second Book of Chronicles in the Old Testament of the Bible. Engineering as a profession is still in its infancy. The earliest reference in this sense is only a little over three hundred years old, although engineers have pursued their art under other names since the beginning of civilization. Over the centuries of history architects and engineers have recorded their studies, their experiments and their dreams, in order that their children could begin where they left off. As is true with any profession, progress was slow and cautious, and many within these professions fought against change of any kind. Progress could be delineated only by comparing the work of one generation against that of its predecessor.

### NOW MODERNIZED

We, in this generation, are indeed fortunate, for in the last twenty years science has made as many worthwhile advances as have been made in any three centuries of our history. The General Motors Technical Development center is a monument to this progress. In the last twenty years we have seen the science of electronics grow from what was termed a "crack pot" idea, into a thriving industry whose products are found in every home in the land. We have seen loosed the awful might and destruction of the atom bomb, and have seen this indescribable power tamed for products of peace. We have seen the chemist, with only coal, air and water, create fabrics that would have been without price in the time of Solomon.

The architect is the creator of all that we find beautiful and pleasing in a new and modern building. To him is given our new lightweight metals, new ceramics and plastics, to combine with the time honored materials of brick, stone and glass, into a new and pleasing whole to serve the ever more critical demands of humanity. The engineer gives life to any modern building. He does so by making it a pleasant and healthful place for people to work, think, relax, live and be entertained. In the complexity of the modern building, the engineer is many men. His tools are the buildings' operational equipment such as plumbing, wiring, elevators, lighting, generators, boilers, compressors, loudspeakers and microphones. These tools, too, have changed in the last two decades. The engineer of twenty years ago would find himself completely lost in the maze of electronic controls and new devices that make up the mechanical brain of any modern building. Progress is at this moment surging forward at such a rate that by the time an engineer has designed the services for a given building and written them into a specification, the products he has specified are many times bordering on obsolescence before they can be installed.

### NEW PRODUCTS

The new products and materials born in today's laboratories are truly without number. Given to the architect and engineer, who must weld them into new and modern structures, they pose a challenge that

*EDITOR'S NOTE: This is the first of a two part article dealing with the writing of specifications, presented by the author at the Annual Spring Conference of The Producers' Council, Inc., and the Construction Specifications Institute, held in Washington, D.C., in conjunction with the 100th Anniversary meeting of The American Institute of Architects. Part II will appear in next month's issue of ARCHITECT & ENGINEER magazine.*

must be met. With all these new products available, it would seem, at first glance, that the lot of the architect and the engineer would indeed be a happy one, whose only limit would be their capacity for imagination in finding new ways to apply the miraculous products that have been handed them.

It has been my privilege, in the last few years, to address many groups of architects, engineers and technicians in nearly every part of the United States. Through this association, I have had the opportunity to talk shop with some of the finest creative architects and the most astute engineers in the nation. I have found that their lot is not as happy as one might think, and that the intelligent application of new products and development of new concepts of building is full of unforeseen problems and full of pitfalls to trap the unwary engineer. In my discussions with these men, and from literally hundreds of letters I have received, the problems of the design professions can be divided into four basic categories. These categories are: (1) the intelligent definition of both new and old materials into a workable specification; (2) the ever-increasing cost of the building; (3) Educational-Industry-Professional relations; (4) deteriorating public relations and lack of public confidence in the design professions. If one pursues this investigation a bit further, it will be found that all four of these basic problems are interrelated, and that each one aggravates the other.

The basic formula in the solution of any problem is to look at it squarely, break it up into causes and effects, and from this hypothesis, work out a logical solution. If we apply this formula to the problems I have cited, we find ourselves led into a position where we see many unpleasant things that are not apparent on the surface.

## SPECIFICATIONS

Take the matter of specifications. What are specifications? The answer to this question depends almost entirely on whom you ask for an opinion.

If, for example, you ask a layman or a client, he will probably tell you that specifications are a book of some kind of mixture of legal phrases and technical jargon, of which he can make neither head nor tail, but which he fervently hopes will mean something to some one, because they cost enough to have some engineer or architect write them.

On the other hand, if you ask a contractor, he will probably tell you that specifications are a fiendish device, employed by architects and engineers, which are unintelligible, unreadable, and conceived for the sole purpose of preventing him from making an honest dollar, and making him the goat for the inadequacy of his suppliers, and the ignorance of the specification writer.

Now if you were to ask a salesman for his opinion of specifications, he would indignantly opine that most specifications were copies from his competitors' catalog, describing nothing but junk that some manufacturers have the gall to foist upon an unsuspecting public. With injured dignity, he will inquire, how can an honest sales engineer sell a superior product such as his own in fair competition with inferior and over priced products such as are specified.

If, however, you took the time to consult a dictionary or an encyclopedia, there you would find the word "Specifications" defined as "definite and determinate, as in a contract." As specifications pertain to the design professions, you will find them defined as "a written document, naming and describing equipment, materials, and processes, setting forth therein concise instructions for the execution of that part of the work which cannot be reasonably named, described or shown by graphic illustration."

Interpreting these definitions, we reasonably conclude that specifications, combined with graphic illustrations or drawings, have only two purposes: One, to convey the thought of the designer, his vision of the finished building, to the hundreds of people who will have a hand in building it; Second, to provide a definitive basis on which a legal contract can be based and executed.

## COMPLEX PROBLEM

At first glance, it would appear that this should not present too much of a problem. However, if we dig into the matter we find that somewhere in the decades since the idea of combining specifications with drawings was conceived, we have somehow managed to transpose these two documents both in volume and importance. Today, specifications no longer complement drawings. Drawings, which from time immemorial have been the universal language of man, are now designed to complement the specifications. With this transposition, we have seen our specifications grow in length and, unfortunately, in confusion as to their true intent as well. Decade upon decade, we have added to the multitude of words in our specifications, until today we must concede that there is more than a grain of realism in the definitions given to these volumes by the layman, contractor and salesman.

Let me cite a specific example. A few weeks ago, I picked up a specification in our local builders exchange, covering the replacement of some steam pipe lines in a post office building. Under the heading of "Pipe" I found two typewritten pages devoted to the minute description of the metallurgical analysis of the metal, its crystaline structure, density, size, shape, tolerances, finish, hardness, and so forth. At the end of these pages, I found this line, in part, "shall comply with ASTM designation and so and so." In an office handbook I found that these two pages could have been effectively replaced with six simple words, "standard schedule forty black steel pipe."

This excess of word use is common in far too many of our specifications today. What purpose does this

multitude of words serve? Do you suppose manufacturers or sales engineers spend hours deciphering this multitude of words to find the nugget of information for which they search? I think not. More often they will pose this question, "what can we get approved—and get away with?" "What can we sell that will give us a price advantage over our competition?" The inevitable consequence is that what the designer really wanted is lost in the multitude of words. What about the tradesman? Not one in fifty ever opens the cover of the job specifications for the simple reason that it contains no understandable instruction for him, and yet, specifications are supposedly written for the tradesman's guidance as much as for anyone else.

I can cite for you a parallel to this condition in another profession. About three thousand two hundred years ago, a man named Moses received from the Lord two stone tablets on which were engraved ten simple laws to enable men to live together in peace. These laws are short. Some contain only four words. "Thou shalt not kill", and "Thou shalt not steal" are two of them. It would seem that in this brevity there would be no need for explanation and no room for argument. Yet out of man's vanity in trying to improve on the work of our Creator was born the whole profession of law. Billions and billions of words have been written to explain and improve on four simple words, "Thou shalt not kill", or "Thou shalt not steal". More words have not improved these basic truths. They have simply made them impossible to enforce. With every amendment that is written to plug a loophole, two more loopholes are created to be plugged.

So it is with far too many of our specifications today. In many cases it appears that the specification writer actually takes pains to hide and obscure the simple messages that specifications should convey.

One cannot be critical without incurring the moral obligation to at least suggest possibilities for improvement of the condition which is the object of our criticism. What, then, is an ideal specification?

## WHAT IS IDEAL?

First of all, it must be specific. It must be so set up, worded and presented so as to sharply focus attention upon the intent of the designer, not to obscure and hide it.

Second, it must be well organized under reasonable headings to enable a reader to quickly locate any portion dealing with any segment of work that commands his interest.

Third, it must be written in plain everyday simple language, avoiding wherever possible the use of highly technical terms. The specification writer must remember that his specification is not written for the use of others in the design profession but for the instruction and guidance of men who do not have his advantage of technical knowledge, and are not fluent in the shop lingo that goes with it.

Fourth, an ideal specification must be brief. It is exceedingly difficult to find many loopholes in a brief specification. Brevity in itself makes a subject either black or white with very few greys in between. A brief specification can be, and usually is, properly enforced. It pinpoints responsibility where it belongs.

Here, perhaps, is where we get an inkling of why our specifications are sometimes so ambiguous, so wordy, and so confusing. If an architect or engineer makes a flat commitment in his specifications, he must be very, very sure that the item or product will do the job he wants done, in the way he wants it, for if it does not, it is then his responsibility alone. On the other hand, if his specification is full of exceptions, if it rambles on and on with studied confusion, it is usually possible to shift responsibility for failure, if it occurs, to some one else, the contractor, owner, supplier or manufacturer. Unpleasant as it may be, failure to accept responsibility for the work of their own hands is at least one of the underlying reasons for our confusing specifications of today, and the deterioration of public relations.

What about rising costs of buildings? We all know that wages in all trades rise to a certain and almost predictable level each year. However, in the last several years, production per man hour worked has increased faster than wages, so except for a reasonable inflationary effect, we must look elsewhere for the answer to this question.

## A SOLUTION

Seven years ago, our firm having had every kind of specification trouble imaginable, decided to tighten up on its specifications. We eliminated the controversial "or equal" clause, and named specifically the products we envisioned for any given project, following the "base bid", alternate procedure which five years later was recommended and endorsed by the American Institute of Architects. We knew that we could not possibly keep abreast of every new product that came on the market. We knew, too, that our clients were aware of that fact, but that they did look to us to use our best judgement and specify products in which we had confidence, even though it was entirely possible that a better product might have been available at the time. We were particularly careful to utilize only the products of firms whose honesty and integrity were above reproach. We combined this tight specification with exceptionally sharp, well-detailed drawings, and followed up the construction work very closely, at what appeared to be a considerable expense to ourselves. We also found a number of errors in our own work, and since we had such tight specifications, we had no alternative but to foot the bill for the correction of our own mistakes. To say that we were the objects of criticism for our actions is the understatement of the century. We were accused of everything from collusion, taking kick-backs from the favored few, down to outright bribery. The one

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# THE HOUSE OF THE FUTURE

**By WILLIAM H. SCHEIECK,**
**Executive Director, Building Research Institute**
**Washington, D. C.***

**PART II**

We will continue to build high-priced houses for a relatively small and select market, and medium-priced houses for a constantly greater market. For the first time, the industry will produce good houses for the low income market. (No matter what anyone says, we have never produced adequate homes in any quantity for lower income groups.)

Higher-priced houses may change the least from today's houses, because of greater selectivity of materials by the home owner. He will demand everything new in comfort and convenience equipment, but will also favor traditional materials for many uses.

The industry generally will be interested chiefly in middle and low-priced houses because they will offer the huge markets. The ingenuity of the industry will be focused on these two classes of houses in a constant battle to reduce production costs and at the same time give the home buyer a more appealing product. The hammer-and-saw contractor will disappear from the scene.

Research and development will divide its attention between the "shell" (or house proper) and the service systems—but with much effort given to their integration into a complete "package for sale."

### Obsolescence

Goals for the shell will be an easy-to-assemble structure having for selling points minimum maintenance, good planning and attractive styling. Yearly changes in the "model" of house will tend to make older houses obsolete more quickly than today.

Goals for the service systems and other equipment and appliances which mechanize the house will be to provide maximum comfort and convenience. Again emphasis on new developments will be publicized on an annual basis.

The structure of many mass-produced houses will probably be frameless. Many types of panels will be available which can be combined in many ways to give far greater variety to the pre-fab house than we know today. Most panels will consist of exterior and interior "skins" bonded to "cores" of honeycomb or foamed materials. The skins may be of plastics, metal, hardboards, chipboards or plywoods processed to give the best performance for exterior or interior conditions. Permanent films may take the place of paints or "natural" finishes.

The panels will have all of the properties necessary for strength, low thermal conductivity, and moisture control. All engineering will be for maximum economy for air conditioning as well as heating, and thanks to competition, insulation will be more complete and effective than today.

Quite possibly, the most advanced forms of structure will resemble the pioneer plastic House of Tomorrow. Large molded sections of a sandwich material will perform as the "universal material" suitable for walls, floors and roof.

### Architecture

There is reason to believe that the house structure may be divorced from the ground, so to speak, by having the floor panels out of contact with the ground and supported on pins. The battle with mud is a nuisance during construction, and the battle with ground moisture and termites goes on and on for houses in or upon the earth. If exterior walls can be comfortable, so can floors off the ground.

The architecture of the house will make very free use of transparent or transluscent walls of glass or plastic. Most of this will be double glazing, fixed in place, except for the occasional opening of an entire wall to the garden for purposes of indoor-outdoor recreation or entertainment.

The developments I have indicated for the structure may well be slower in coming than equally surprising progress with the service systems.

Year-'round air conditioning looks like a sure bet considering the standards of comfort demanded by the public. With many types of structures the panels will be built to include integral duct spaces for air distribution. The well insulated shell will permit the use of relatively small air conditioning plants.

The designer will not want the mechanical unit to occupy any valuable floor space, nor to have a position in the plan that might interfere with rearrangement of space units within the house. Evidently the air conditioner will have to be above or below and outside of the living space. Wherever it is, it must be a get-at-able unit, because improved models will be in demand as the industry makes progress.

### Utilities

Of course, I ought to be asking you about the future of air conditioning. Maybe if I talk "blue-sky" as

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*(A presentation made to the Second Annual Technical Conference of the National Warm Air Heating and Air Conditioning Association, in Cleveland, Ohio, May 1st, 1957.)*

Cantilever extending 11 feet over supporting foundation and wall is made possible by using steel sections. Structure utilizes skeleton of steel ribs which support roof and floor without load bearing walls.

# SEQUOYAH RESIDENCE HAS HELIPORT ON ROOF

OAKLAND, CALIFORNIA

Erecting rigid steel frames; floor joists of steel ribs were landed on concrete piers and wall of 45 degree lot, ceiling joists bolted to seven concrete block pillars; 12 foot by 1-foot sheer wall connected to two of the interior frames will provide lateral support.

Architect:

DAVID THORNE

Consulting Engineer:

DONALD H. MOYER

Builder:

RAY D. NICHOLS

**View of Patio area is accessible from kitchen and bedrooms—carport at left.**

Commuting from home to office by helicopter is not so far away as one would imagine, for in San Francisco's Bay Area at least one house has been designed with this in mind.

High in Oakland's foothills with a panorama of the entire Bay below it is the latest design of Architect David Thorne, known as Sequoyah House. One of the features of its unusual design is a roof capable of supporting helicopter landings. Already several flights and landings have been made. By helicopter, the office in downtown San Francisco is just 20 minutes away compared to 1 hour through heavy traffic.

But the commuter was not the only person the builders and designers had in mind in planning this house for suburban living. Sequoyah home embodies many unique ideas contributed by architect, interior decorator, builder, and landscaper. It is truly a versatile home. For example, Sequoyah house offers one level living, yet the house is situated on a steep slope. Every room in the house has access to either deck or garden. Wide expanses of glass take full advantage of view, yet complete privacy is assured.

Thorne's trademark, which make many of these unusual features possible, is the use of steel as the supporting framework of the entire structure.

By using a structural steel skeleton, Thorne and structural engineer, Don Moyer, were able to provide such unusual features as complete openness—no bearing walls to clutter and cramp interiors, spacious areas of glass, a spectacular cantilever of nearly one third of the house, use of new and lighter materials in the interior, and rugged support of roof and floor to make such things as a heliport possible.

The key to building the Sequoyah house lies in its seven steel ribs set parallel to form the "L" of the basic

**Thirty foot long sunken planter separates patio from inside entry hall and gives open feeling.**

***Photos by Bethlehem Pacific Steel***

**Fireplace in living room serves a double purpose—cement block wall serves as structural support for two interior steel frames, providing lateral or shear strength; wall also serves as backdrop for fireplace hood of burnished copper.**

floor plan. Each of these ribs were fabricated as a single rigid frame. Eight inch light joists, weighing 10 pounds to the foot, used as the front columns were left exposed and connected the floor cantilever beams to the roof beams. Heavier supporting sections were 12 inch wide flange beams weighing 27 pounds to the foot.

The ribs for the entire house were shipped to the building site by truck and landed on the concrete piers by a 25 ton crawler crane. Only three field welds were necessary to connect the 61 foot long span sections forming the long leg of the "L".

By using this type of framing, builder Ray D. Nichols was able to actually cut costs of the house. First, by using steel, he was able to avoid a costly poured foundation. The floor beams of the steel frames were bolted to a concrete wall in the front of the steep portion of the lot, the rear of each section to a simple poured footing. Piers were connected with a boxed one foot by one foot concrete tie beam. The roof sections were bolted in the rear of the house to concrete block piers, while a shear wall 12 feet by one foot connected two of the interior steel frames, and served double duty both as a shear wall and backing for an attractive fireplace.

Steel framing also gave another advantage. The structure was completely independent of any bearing wall, and interiors could be planned to take full advantage of light materials while glass could be generously used on the exterior. Nichols used rich looking teak wall paneling for most of his interiors. Instead of a costly continuous footing for his fireplace, he was able to pour his hearth slab with reinforced concrete between the opposing steel wide flange sections in the floor.

Framing up with wood was made easy by installing

**KITCHEN VIEW**

**Seven foot overhang cuts down glare of sun.**

2" by 4" wood sills on the steelwork with steel pins driven by a powder-actuated device. The steel fastening pins were driven through the sills and seated into the flanges of the steel.

For view, the 12 foot cantilevered deck with its openings off the living room and bedrooms, provides a spectacular panorama of the Bay, and complete privacy.

Such innovations as clever built-ins for TV, hi-fi, and record player in the den, compartmented baths, and a dramatic living room fireplace, a 30 foot long sunken planter connecting patio and entry hall, make this design a truly versatile house of the future.

# BETTER LIVING THROUGH ENGINEERING

**By AXEL MULLER**

I am here as a representative of the engineering profession and particularly as a member of the San Francisco Engineers Speakers Club, which is cooperating with the San Francisco Bay Area Engineers' Week Committee in the celebrating of National Engineers' Week. . . .

I shall waste no time in announcing that today I shall tell you about how to obtain better living through engineering, with stress on "better." After all, we are already enjoying pretty good living in this country. Of course all of us may have heard some elderly gentleman grumble about the shortcomings of present day living as compared to the good old horse-and-buggy days. But this same man tends to overlook two facts: one, that everybody did not own a horse and buggy and two, that he probably was one of the few who did. Today practically everybody owns an automobile, whether for business, or pleasure, or merely for picking up his unemployment insurance.

All over the country engineers, during this week, are addressing groups such as your own, telling them about engineers' contributions to our standards of living, general welfare, and security. It has special significance that we do so during the week of George Washington's birthday. George Washington was an outstanding engineer who built highways and canals which were tops for their day. Because he was a great engineer is one of the reasons this country is a great country.

I would like to give you a definition of engineering. It is defined as "the art and science by which the properties of matter and energy are made useful to man in structures, machines, and products." Most of you, I am sure, will go along with calling engineering a science, but is it also an art? . . . Many can draw lines intersecting each other at right angles, or at any given angle, and plot curves according to a formula or a set of observations. That in itself does not make them engineers, or provide blueprints from which to build useful structures or smoothly operating machines. The art of engineering is displayed when the sciences are made to work for the use and convenience of man, even as the practicing of medicine is an art superimposed upon the medical science.

Let me also pause a moment at the word "engineer". Due to absurdity in our language this word is often being used in a much more general sense than in the meaning "professional engineer". I am talking about professional engineers who through advanced education in the exact sciences and related matters have obtained the necessary qualifications to make, according to the definition of engineering, the properties of matter and energy useful to man in structures, machines, and products, and who, as members of a profession, can be expected to possess integrity and adhere to a code of ethics.

There are many kinds of professional engineers, such as civil, mechanical, electrical, chemical, mining and metallurgical, petroleum, industrial, and electronic engineers, to mention the largest groups. There are hardly any aspects of human life in which the works of one or several of these groups of professional engineers are not evident. Whether in our homes or hospitals, offices or factories, churches or restaurants, schools or theaters, on our highways or rivers, in our cities, forests or on our farms, on the sea coasts or in the oil fields these many diversified branches of engineering strive continuously to provide one common thing: not just good living, but better living through engineering. . . .

That the United States leads the rest of the world as regards standards of living is because we have available more power per person than any other country. Power production per person in this country is roughly twice that in Britain, three times as much as in France, and four times as much as the Russians turn out. The water in our mighty rivers has been harnessed and the coal in our rich deposits is being mined, to produce power for the wheels of industry and for added conveience in our homes and elsewhere. Oil is being produced from domestic and overseas sources, and natural gas piped over thousands of miles, to make machines spin at the push of a button and ranges burn at the turn of a knob. It is professional engineers who build the dams, sink the drills into the earth, and construct the pipelines.

Other professional engineers are busy providing

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*EDITOR'S NOTE: Presented herewith is an excerpt of a paper by Axel Muller, prepared in conjunction with observance of national Engineers Week—1957, which received the William H. Popert Trophy for the best paper presented in the San Francisco Bay Area.*

**EXHIBITION and OFFICE BUILDING**

# THE NEW YORK COLISEUM

## NEW SKYSCRAPER AND WORLD'S LARGEST EXHIBIT AND OFFICE BUILDING

**By DR. W. SCHWEISHEIMER**

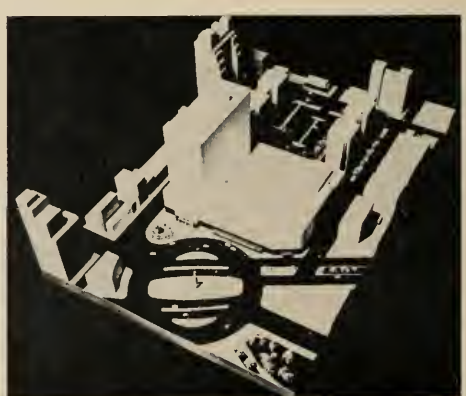
The 35-million dollar structure of the New York Coliseum, built by Triborough Bridge and Tunnel Authority as a public service, covers an area extending from 58th to 60th Streets fronting on the westerly side of Columbus Circle. It consists essentially of a four-level exhibition hall, the largest in the world, surmounted along the West 58th Street frontage by a twenty story office building. The entire basement and sub-basement is used as a parking garage for 850 cars.

The clean, sharp lines of the attractive new structure is conservatively styled in light gray brick with dark granite base. The four exhibition floors, with a total of 391,000 square feet of display and storage space, may be used singly for four separate simultaneous shows or any combination of floors may be used together.

### Exhibition Hall

The need for a commodious, flexible, modern exhibition hall in New York has been recognized for many years. The use of the Coliseum for trade shows and expositions is expected to add a million visitors annually to New York's transient traffic. These visitors will spend close to 300 million dollars in the city's hotels, restaurants, theatres and retail establishments. The new facilities will encourage many new groups to schedule their expositions in New York.

The entrance to the Coliseum is from Columbus



**MODEL—looking west from Columbus Circle . . . connected with new apartment house development.**

Circle. Visitors enter a large public lobby 286 feet long and 59 feet wide divided by low glass partitions into four sections each served by separate means of vertical transportation. This arrangement permits controlled entrance to the four exhibition floors so that a single show may occupy the whole building. The exhibition hall is operated by the Coliseum Exhibition Corporation.

The Coliseum contains more than 9 acres of gross floor area, of which 6-1/3 acres is fully usable exhibition space, and the remainder is for meeting rooms, public lobbies, service and storage. The main exhibition floor is 88,000 square feet in area and may be reached by escalator or elevator from the lobby. This floor also has a minimum ceiling height of 20 feet and is featured by a central well in excess of 150 feet in each dimension having a clear height of 60 feet. The well is surrounded by two balconies having respectively 71,204 square feet of exhibition space on the first and 45,358 square feet on the second.

Extreme care has been taken to avoid congestion on the surrounding streets. Trucks may drive directly on to the first exhibition floor. A truck ramp leads directly from 58th Street to the second level main floor. There is no permanent auditorium or fixed seating in the Coliseum.

Here are some statistical figures connected with the new Coliseum.

| | |
|---|---|
| Width—58th St. to 60th St. | 421′—5″ |
| Depth from Columbus Circle | 325′—6″ |
| Height—Exhibition Hall | 106′—0″ |
| Height—Office Building | 241′—0″ |

Gross Area

| | | |
|---|---|---|
| Coliseum: | | |
| 4 Exhibition Floors | 273,672 sq. ft. | |
| 13 Meeting Rooms | 17,584 " " | |
| Offices | 17,262 " " | |
| Service | 87,278 " " | |
| | | 395,796 sq. ft. |
| Garage: | | |
| Sub-Basement | 159,902 sq. ft. | |
| Basement | 154,940 sq. ft. | |
| | | 309,842 sq. ft. |
| Office Building | 679,700 sq. ft. | |
| | | 679,700 sq. ft. |
| Total | | 1,385,338 sq. ft. |

Floor Loadings:

| | |
|---|---|
| Garage | 75 lbs. per sq. ft. |
| Office | 75 " " " " |
| Main Exhibition Areas | 300 " " " " |
| Secondary Exhibition Areas | 200 " " " " |
| Meeting Rooms | 100 " " " " |

Vertical Transportation

| | |
|---|---|
| Coliseum | |
| Escalators | 7 |
| Passenger Elevators | 9 |
| Freight Elevators | 2 |
| Truck Elevators | 3 |
| Office | |
| Passenger Elevators | 12 |
| Freight Elevators | 2 |

**Office Building of Coliseum**

The office building tower is an integral part of the whole project and contains 533,612 net square feet of modern air conditioned space. Floor to ceiling height with hung ceilings is 9 feet 2 inches and without hung ceilings 11 feet 1 inch, the option being left to the tenant.

Architects for the Coliseum were Leon and Lionel Levy, with Aymar Embury II, Eggers and Higgins, and John B. Peterkin comprising a consulting and advitory committee. A joint venture of Walsh Construction Company, George A. Fuller Company and Slattery Contracting Company under the name Walsh-Fuller-Slattery was general contractor.

Coliseum Exhibition Corporation has leased the New York Coliseum from Triborough Bridge and Tunnel Authority for ten years at a minimum guarantee of $300,000 a year plus a graduated percentage of gross income. The twenty-story office tower of the structure is leased separately.

The decoration of the Coliseum is a series of four large sculptured aluminum seals over the entrance. They represent Federal, New York State, New York City, and Triborough Bridge and Tunnel Authority and are a work of the sculptor Paul Manship.

The New York Coliseum is the only exhibition hall in the United States in which all exhibit space is air conditioned. It is estimated that the coliseum's facilities for freight handling will cut the cost of setting up a show about 50 per cent. Street unloading with its traffic tie-ups, lost time and extra work, is eliminated.

The lighting in the Coliseum is modern, indirect fluorescent lighting with variable intensity, and with special fixtures in the ceiling for spot-lighting effects.

Two fourteen-story apartment buildings financed by private capital, are being built to adjoin the new New York Coliseum.

**75,000 sq. ft. area**

# FRANK EDWARDS COMPANY OFFICES and WAREHOUSE

BURLINGAME, CALIFORNIA

## Associated Construction & Engineering Company, General Contractors

The Frank Edward's Company's new million dollar combination warehouse, product display rooms, and general office building, which was recently completed and opened to the public, in the rapidly developing Millsdale Industrial Park, near the San Francisco Municipal Airport in San Mateo county, represents the latest trends in modern architecturally designed and engineered facilities for a large firm handling West Coast sales, service and distribution of several nationally known lines of home appliance products and parts.

The spacious warehouse has ben designed to provide easy access storage and rapid handling of crated home appliance products, plus a vast quantity of essential repair parts and service items, together with standard built-in kitchen units. Transportation facilities include a railroad spur track and truck loading docks. Provision has also been made for adequate automobile parking areas for firm personnel

**NEW LOOK in kitchens with built-in TV is being demonstrated by Harold Brandt, Assistant Sales Manager.**

**WAREHOUSE INTERIOR—showing ample storage area and conveniences.**

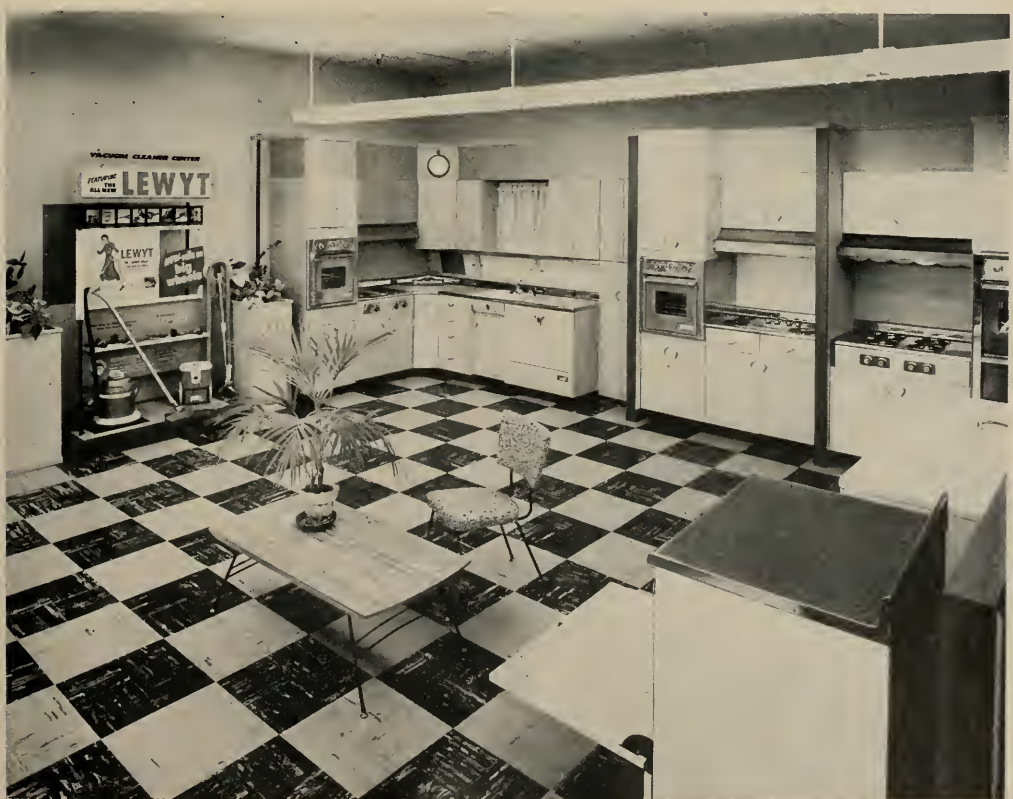
and customer use.

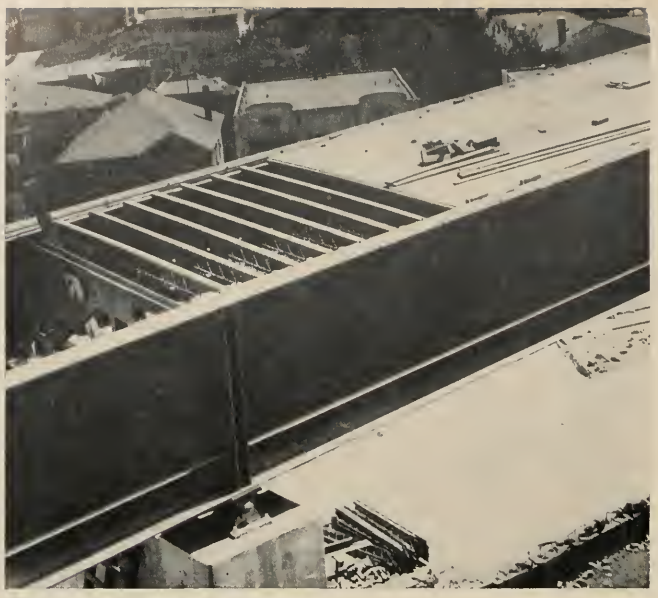
The front portion of the building facing the service street and overlooking the lower San Francisco Bay and the Bayshore Freeway, is devoted to a number of modern display facilities which feature a variety of types and designed complete gas and electric kitchens that incorporate the latest features in home kitchen design and product use. These showrooms also demonstrate the possible combined use and practability of the use of steel with the warmth and beauty of fine wood veneers in today's construction of any modern kitchen.

"The architects, engineers and contractors have certainly provided us with a perfect combination of warehouse, product display and demonstration facilities, and office building, and one that permits us to easily give our customers and suppliers the advantage of one of the most modern distribution facilities in

(See Page 24)

**MODERN DISPLAY AREA—Designed to emphasize product installations in actual use requirements; lighting and flooring contribute.**





**Product use on bridge floor construction.**

NEW
ENGINEERING
DESIGN
USE

MOVES
WEST

# NEW CARQUINEZ BRIDGE

## CALIFORNIA STATE HIGHWAY PROJECT

### CROCKETT, CALIFORNIA

First use on the Pacific Coast of a newly engineered horizontal shoring for all beam and slab concrete floor forms, may be seen in connection with construction of the decking of the new Carquinez Straits bridge at Crockett by Peter Kiewit Sons' Company, where the new California State Highway system of freeways serving the Oakland-East Bay metropolitan area and Vallejo and Northern California crosses the Sacramento River.

**Details of new engineering application.**

As illustrated on this page, this new product called Spanall consists of two basic structural members, a lattice member and a plate member which are assembled to desired span lengths simply by combining any one or more plate members with any one or more lattice members.

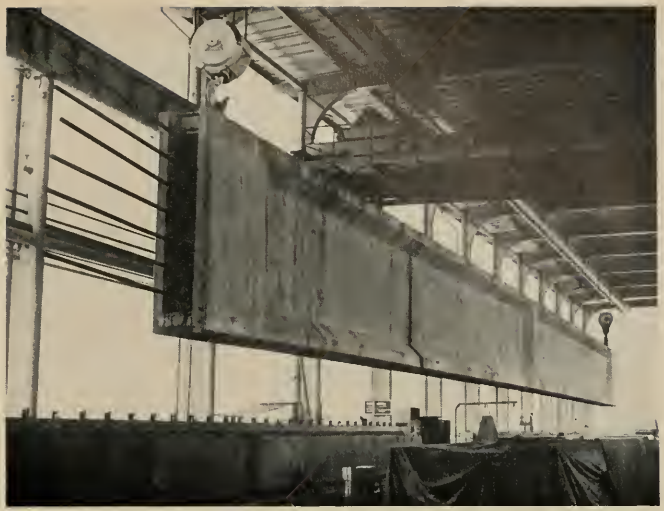
Experience in the East has shown that this method saves the contractor both labor, material and time by the repeated use of the same sections on varying spans on the same job and by eliminating the now out-dated forest of costly vertical shoring. They are easy to erect and strip, can be handled by one man and are easily adjusted for length of span and camber.

Distribution of this new design product for the West Coast, Alaska and the Hawaiian Islands has been granted to Spanall of the Pacific, Inc., who have appointed the W. J. Burke Company as agents in those areas served by the Burke organization.

**PRECAST CONCRETE GIRDER**

**16 tons in weight being raised from casting position at Napa, California, fabrication plant.**

*Photo by Basalt Rock Co.*



UNIQUE CONSTRUCTION DESIGN AT

# BAYFAIR SHOPPING CENTER

SAN LEANDRO, CALIFORNIA

## VICTOR GRUEN & ASSOCIATES

**Architects**

## DINWIDDIE CONSTRUCTION CO.

**General Contractor**

Six massive precast concrete girders, as shown in the above illustration, form the unusual and rugged structural backbone for construction of the new Bayfair Shopping Center near San Leandro in Alameda county.

These huge, "I" shaped girders, are made of Basalite lightweight expanded shale aggregate concrete with a design strength of 5000 psi, and are the largest prestressed lightweight concrete girders of their type ever precast, according to engineers. Despite their great size however, they are being trucked without difficulty from their place of construction in the City of Napa, through the East Bay and Oakland metropolitan areas to the jobsite.

All six massive girders have an overall length of 76-feet, weigh 16-tons each, and are 60-inches in height. They are all 16-inches wide and have a 5½-inch web.

When in place in the new, open area type super market building, they will support 30-foot span Double Tee roof slabs, thus furnishing a reinforced concrete roof assembly of maximum strength and permanence.

These newly designed girders are of two basic types: Three girders, like the ones illustrated above, have a span of 75-feet, and are post-tensioned with seven ⅛-inch diameter Stressteel rods. The initial prestressing force on these girders was 725,000 pounds, with final prestressing force of 551,000 pounds, after losses.

The other three girders being used in this construction project have a 60-foot span and a 16-foot cantilever, post-tensioned with five ⅛-inch stressteel rods curved to resist both positive and negative bending moments. The final prestressing force, after losses, is 373,000 pounds.

This is another fine example of cooperation between architect, engineer, contractor and product manufacturer to meet a specific construction need.

NOTED SAN FRANCISCO ARCHITECT DIES

# ARTHUR BROWN, Jr.

Arthur Brown, Jr., internationally famous architect and designer of many of San Francisco's most outstanding buildings, died July 7th at Peninsula Hospital in Burlingame. He was 83.

Mr. Brown was stricken with a heart attack six weeks ago upon his return from Washington, D.C., where he had been acting as one of three chief advisors on design for the remodeling of the United States Capitol.

He had been appointed to the Washington architectural project only last year. Despite his age, Mr. Brown maintained a continuously active architectural practice and scorned retirement.

He was outspoken in his criticism of careless urban development and only six months ago blasted San Francisco's "defacement" by freeways that will soon loop alongside such local monuments as the Ferry Building and the City Hall.

Among the buildings he designed were San Francisco City Hall, the War Memorial Opera House, Veterans Building and the Federal Office Building—all in the Civic Center.

He was also the architect of Coit Tower, of the Hoover Library and many other buildings at Stanford University; of a large group of buildings at the University of California; of the Pacific Gas & Electric building; Temple Emanu-El and of the California School of Fine Arts.

The Interstate Commerce and Labor Department buildings in Washington, D.C., designed by him, were

(See Page 33)

## SPECIFICATIONS WRITING

(From Page 10)

gleam of light in an otherwise unhappy situation was that we were getting the kind of a building which we had designed. After our reputation for sharp drawings and clear tight specifications was established, we found that our cost of field supervision dropped to a fraction of what it had been. We also avoided a good many unpleasant arguments with contractors and owners alike, about what was or was not covered or approved in the contract documents.

After about two years of this so-called arbitrary attitude on specifications, we found that contractors were bidding our work on a much closer margin, and that they felt no additional risk in so doing because of the clarity of our drawings and specifications. Manufacturers, too, made their contribution. They knew that they had one chance to bid our work. They had to be in line, price wise, on their first quote or someone would beat them on an alternate. Suddenly they woke up to the fact that after bids were in, the contractor no longer controlled the job, and price cutting after bids were received was to no avail. Therefore they bid closer on their first quotation. The price that goes into a contractor's bid is based on the prices he receives while he is assembling his bid. A price cut after the bids are in does not help an owner as his price is fixed by a bid.

During seven years of practicing with tight specifications, we have proved conclusively to ourselves and to our clients that tight specifications, combined with clean, sharp, well-detailed drawings are worth from a dollar and a half to two dollars a square foot of floor area on buildings in the ten to twenty dollar a square foot range. We are firmly convinced that the biggest contribution that the design professions can make towards the control of ever-increasing prices is to tighten up on their specifications and clean up their drawings, and combine these actions with competent and full field supervision of contractors.

### MIRROR WRITER

One cannot enter into a study of specifications and their reception by the various segments of the construction industry, without recognizing that the specifications that we write are like a mirror. In them can be seen every strength we possess and, with equal clarity, our weaknesses too. They bring to the cold light of day self confidence or the lack of it. They cry out the relationship that exists between architect and engineer, between the design professions and their clients, contractors and manufacturers. They focus attention on the failings of our institutions of higher learning to whom we look for the engineers and architects of tomorrow. The day is now past when any architect, engineer or technician can do more than have a speaking acquaintance with more than a few of the complexities of science that go into today's modern building.

Architects are finding that they must rely more and more on the specialized services of consulting engineers who are qualified to design and specify our

ever-more complex building services. The deplorable practice that is indulged in by far too many architects of retaining a consultant as a blue print maker, and then denying him authority to supervise bidding and construction of his own work, is one that must be wiped out. It is my humble opinion that not one practicing Architect in fifty is qualified to even offer intelligent field supervision of contractors in the mechanical and electrical trades, not to mention the problem of ruling on the suitability of equipment for an application that was conceived, planned and specified by a member of the engineering profession. I firmly believe that any architect who wishes to keep step with our changing times must recognize and admit that pursuit of his profession is no longer a one-man show, and that no one man can be all seeing, all knowing, or qualified to sit in judgment of the work of other professions.

*(To Be Concluded Next Month)*

## HOUSE OF THE FUTURE

(From Page 11)

though I know all about it, you can make it come true. At any rate, it looks to me as if we may be headed toward all-electric energy with nuclear fuels in common use. If so, why won't we go to the heat pump? And why won't we store summer heat in the ground to be used in the house again the next winter?

Both architects and engineers might be put in the shade by the aggressive and progressive appliance industry. Some of the miracles of electronics planned for tomorrow are even being shown in films today by some of the companies. The entire kitchen, including automatic laundry, will be installed in the home as a complete unit produced by one manufacturer. The home-making area for the low-cost home will be smaller than the high-priced models, and lacking some of the luxury features for entertaining. Both low and high cost units will be notable for beautiful design and skillful engineering. Because of new advances in the preparation and packaging of foods, the storage portions of the kitchen will be simplified, with emphasis on cold storage.

For the house in its entirety, the problem to be solved in the future will be the provision of adequate space. Too many families in the mid-twentieth century had to live in too little space, with no flexibility and poor possibilities for expansion.

### Leisure Time

The family of the future, with more leisure time, will have more activities, and will put a greater premium on the needs of individuals of the family to be following different pursuits at the same time. We can expect to see some ingeniously planned storage units to be used as space dividers with many built-in specialities to take care of the space served. These units will take care of all of the belongings of an individual, from clothes to sports equipment, and will contain such built-ins as dressing tables and desks. Such units are likely to be made of plastics which offer stick-proof drawers, and easy demountability for rearrangement of living areas.

In fact, all of the areas of the house will be designed for great versatility in use, size, and arrangement to accommodate various group activities of the family—grown-ups, teen-agers or children. Easy to clean, relatively damage-proof finish surface materials will be generally used on the interior.

In meeting the requirements of tomorrow's families, the industry will shoot for 2000 square feet of living space for the middle income market. Each unit will offer 3 or 4 rooms of a "private" nature for the family of four or more.

Finally, a most interesting development—late in the century perhaps—will be "keeping the market up-to-date". The industry will find ways to prevent obsolete houses from remaining on highly valuable suburban residential sites convenient to the cities and major shopping centers.

The goal will be to be able to sell new models to replace outdated ones on the same piece of land. Houses will be built so that they can be added to or substracted from, according to the owners living requirements, and ultimately sold second-hand to another home owner for use somewhere else.

The technical problems in reaching this goal will be much simpler than some of the problems of codes, taxation, finance and economics. All problems can and will be solved, however, because both the home building industry and the public will recognize the marketing advantages in a changeable and movable house. With this type of house, the land in choice subdivisions, instead of gradually deteriorating to slums, will continually improve as successive owners develop gardens and outdoor recreational facilities. No longer will a good site have to be occupied by one house through its full cycle of life and into its obsolescent years.

You may decide that this has been quite a "blue-sky" talk—somewhat beyond the range of probability for the foreseeable future. Let me remind you that many of the things I have mentioned are already invented, though not fully developed. Some things I have mentioned have already appeared in modern mid-century homes, but rarely altogether in even the most luxurious demonstration homes. The forces needed to cause the actual development of these ideas are here—an ingenious, competitive industry with huge markets just far enough ahead to make a good technological race out of it. The manufacture of houses has not enjoyed the revolutionary progress of some of our other industries. We're over-due and we're bound to achieve it.

**(Conclusion)**

## BETTER LIVING . . .

(From Page 13)

better means of communication. Very soon we can pick our phone and dial directly to any point in the country.

One ingredient of our standards of living is public health and safety. In this connection I shall mention something that you, as inhabitants of the Bay Area, may be particularly interested in. I am thinking of smog control or, as it is called with a finer word, air pollution control. We are fortunate here in the San Francisco Bay Area not to have smog problems of such magnitude as in many places in the United States. Furthermore we have been alerted to the problem before it has reached major proportions. The very fact that the intended banning of open trash burning is meeting so much opposition, goes to show that the Bay Area Air Pollution Control District is "an early bird". Smog control is basically an engineering problem.

My own work as a professional engineer is as cost engineer with the H. K. Ferguson Company, nationwide industrial engineers and builders with considerable activity also in foreign countries. My work consists of estimating jobs, whether for bidding purposes or for budgeting, keeping control of the costs on the actual jobs, and checking that these jobs are being kept on schedule. As a cost engineer I belong to that special breed of men who, according to themselves, get the blame when a job goes sour; whereas, if the job makes a fair profit, the men in the field take all the credit. However that may be, cost engineers perform an important role within the construction industry which is our largest single industry, accounting for eleven percent of the national gross output. Two factors are of vital importance in construction: cost and time. "Time is of the essence of the contract" is a clause found in most contract specifications, and a fast completion of a job means even more in times of a tight money market such as we have today.

After a construction project has been found feasible and economical, and after financing has been arranged for, there are three stages of operation, whether it be a building, a highway, a bridge, a railroad, an airport, a water treatment plant, a dam, a power plant, or any other structure. These stages are design, cost estimating and scheduling, and actual construction. The design engineer, the cost engineer, and the construction engineer work as a team, with a common view of keeping cost and construction time to an absolute minimum consistent with the required safety, usefulness, and general appearance of the structure. Often the estimator's judgment is decisive when there is a choice betwen different materials or construction methods.

The trend in construction, spurred by the desire for better and cheaper structures, completed in less time, plus ultimately providing better living, is to make the best use of existing materials, adapt new materials, and devise new and faster erection methods. Stone, steel, concrete, and wood are time proven materials, but engineers are constantly at work improving the usefulness of these materials. One such use which has been developed in recent years is "prestressed concrete", in which steel cables, taking the place of the conventional reinforcing rods, are pulled taut while the concrete is being poured, resulting in an enormously increased resiliency of the hardened concrete. Savings in material, both steel and concrete, is considerable. Prestressed concrete beams have

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*General Contractors*

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## FRANK EDWARDS CO.

(From Page 19)

the West," declared Frank Edwards, president of the firm.

The total overall area of the new building is 74,618 square feet of which 10,786 square feet has been devoted to the general and executive offices. The structure is a dick-high, reinforced concrete, type III tilt-up concrete building with strap and pin timber trusses and it incorporates a Berkeley type roof system. The spacious windows in the office and display area are aluminum sash. The ceiling of the office area is finished in a mineral fishered type acoustical tile.

found a wide application in highway bridges and have also entered the field of building construction.

Among new materials which have been taken into use are aluminum, bronze, stainless steel, plastic, and asbestos. A widespread use of these materials is as "skin walls" in tall office buildings and factories where they are used in exterior walls. They are as durable and have aesthetic properties comparable to the older materials; are lighter and require much less erection time.

Two new cost- and time-saving erection methods, both involving reinforced concrete, are being applied widely, especially here on the West Coast. They are the "tilt-up" and the "lift-slab" methods. In "tilt-up" construction, which is especially suited to warehouses, factories, and market buildings, the concrete walls are fabricated as a number of panels in a horizontal position, usually on the completed floor slab. When the concrete has attained sufficient strength, normally after two to three weeks, the wall panels are hoisted into vertical position and the gaps between them filled with conventionally poured concrete columns. The cost of "tilt-up" walls may be as low as half that of poured-in-place walls.

In the "lift-slab" method the floor and roof slabs are all poured on the ground, one on top of the other, sandwich fashion, a thin film separating the individual slabs. After hardening and curing, the slabs are jacked up along the previously erected columns to their final positions, first the roof slab, then the top floor slab, etc. This method has been used for buildings up to eight stories high. Also in this case the cost is considerably les than for poured-in-place concrete as is the time required.

The most outstanding local example of saving in cost and time from fast erection methods combined with an economical use of materials is the San Rafael-Richmond Bridge . . . several methods, notably the use of an aluminum scaffold for erection of the steel girders, resulted in the bridge being completed several months ahead of schedule.

So much for the present. Now let us take a look at the future and see how engineers can provide better living in the years to come. . . . This country is still rich in coal, oil, and natural gas and has water energy as yet undeveloped. But with the rise in population and the increase of power consumed per person it is predicted that our resources will give out in a foreseeable future, some say before the end of the century. The answer to this situation is atomic power. A large number of engineers in this country are engaged in a vast research and construction program that will eventually enable us to produce power from atomic energy on an economical basis. . . . We are devoting much time and enormous sums of money to find the best and cheapest sort of reactor, the heart of

(Continued on Page 32)

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it costs no more
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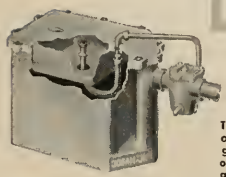

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## NORTHERN FRONTIER PARTY CHAPTER

Charles J. Woodbury, AIA, of Petaluma, California, has been elected chairman of a newly formed group of Northern California AIA architects who practice in the north coast counties of California. Donn Weaver of Ukiah has been named vice-chairman of the group which has named itself "The Northern Frontier Party."

Purpose of the group is to make it possible for architects living in the north counties to keep in closer communication with the AIA and with each other. Membership at present includes C. A. Caulkins, Santa Rosa; Thomas R. Burke, Santa Rosa; Charles J. Woodbury, Petaluma; Donn Weaver, Ukiah; William A. Steele, Jr. and John C. Van Dyk, Jr. of Santa Rosa.

## CENTRAL ARIZONA CHAPTER

Student Awards and a discussion of Finance and Banking featured the July meeting held in the ABC Club.

It was announced that the national board of the AIA will hold their fall Board Meeting in Phoenix, November 11-16. Special activities are being arranged by Chapter members and their wives.

## SAN FRANCISCO ARCHITECTURAL CLUB

Bob Raukin of the Soule Steel Co. was the principal speaker at the July meeting held in the Gino's Club,

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

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John A. Nordbak, President (Downey); Willard T. Jordan, Vice-President (Costa Mesa); Don M. Williamson, Secretary (Laguna Beach); Gordon F. Powers, Treasurer (Long Beach). Office of Secy., 861 Park Ave., Laguna Beach.

Oregon Chapter:
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Pasadena Chapter:
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San Diego Chapter:
Sim Bruce Richards, President; Raymond Lee Eggers, Vice-President; William F. Wilmurt, Secretary; Fred Chilcott, Treasurer. Directors: Frank L. Hope, Samuel W. Hamill, Victor L. Wulff, Jr. Office of the Secty., 2868 Fourth Ave., San Diego.

San Joaquin Chapter:
Allen Y. Lew, President (Fresno); William G. Hyberg, Vice-President (Fresno); Paul H. Harris, Secretary; Edwin S. Darden, Treasurer (Fresno). Office of Pres., 408 Fulton St., Fresno.

Santa Barbara Chapter:
Darwin E. Fisher, President (Ventura); Wallace W. Arendt, Vice-President (Santa Barbara); Donald H. Miller, Secretary; Donald A. Kimball, Treasurer (Santa Barbara). Office of Treas., 1045 Via Tranquila, Santa Barbara.

Southern California Chapter:
Cornelius M. Deasy, President; Robert Field, Jr., Vice-President; Stewart D. Kerr, Treasurer; Edward H. Fickett, Secretary. DIRECTORS: Stewart S. Granger, Burnett C. Turner, George V. Russell, Paul R. Hunter. Exec.-Secy., Miss Rita E. Miller, 3723 Wilshire Blvd., Los Angeles 5.

Southwest Washington Chapter:
Charles T. Pearson, President (Tacoma); Robert T. Olson, 1st Vice-President (Olympia); Donald Burr, 2nd Vice-President (Tacoma); Percy G. Ball, Secretary (Tacoma); Alan Liddle, Treasurer (Tacoma); Trustees—Gilbert M. Wojahn and Gordon N. Johnston (Tacoma). Office of Sec. 2715 Center St, Tacoma, Washington.

Utah Chapter:
W. J. Monroe, Jr., President, 433 Atlas Bldg., Salt Lake City; M. E. Harris, Jr., Secretary, 703 Newhouse Bldg., Salt Lake City.

Washington State Chapter:
James J. Chiarelli, President; Edwin T. Turner, 1st Vice-President; Harold W. Hall, 2nd Vice-President; John L. Rogers, Secretary; Albert O. Bumgardner, Treasurer. Miss Gwen Myer, Executive Secretary, 409 Central Bldg., Seattle 4.

Spokane Chapter:
Wm. C. James, President; Carl H. Johnson, Vice-President; Keith T. Boyington, Secretary; Ralph J. Bishop, Treasurer; Lawrence G. Evanoff, Carroll Martell, Kenneth W. Brooks, Directors. Office of the Secy., 615 Realty Bldg., Spokane, Washington.

Hawaii Chapter:
Robert M. Law, President; Harry W. Seckel, Vice-President; Richard Dennis, Secretary. Directors: Edwin Bauer, George J. Wimberly. Office of Secy., P.O. Box 3288, Honolulu, Hawaii.

CALIFORNIA COUNCIL, THE A.I.A.
William G. Balch, Los Angeles, President; L. F. Richards, Santa Clara, Vice-President; Frank L. Hope, San Diego, Secretary; Albert B. Thomas, Sacramento, Treasurer. Miss Rhoda Monks, Office Secretary. Office of Secty., 703 Market St., San Francisco 3.

CALIFORNIA STATE BD. ARCHITECTURAL EXAMINERS:
George P. Simonds (Oakland), President; Ulysses Floyd Rible (Los Angeles), Secretary; Earl T. Heitschmidt (Los Angeles); C. J. Paderewski (San Diego); Norman K. Blanchard (San Francisco). Exec. Secy., Robert K. Kelley, Room 712, 145 S. Spring St., Los Anbeles; San Francisco Office, Room 300, 507 Polk St.

## ALLIED ARCHITECTURAL ORGANIZATIONS

San Francisco Architectural Club:
Hal Major, President; Camiel Van De Weghe, Vice-President; Francis E. Capone, Secretary; Stanley Howatt, Treasurer. Office of Secty., 507 Howard St., San Francisco.

Producers' Council—Southern California Chapter:
LeRoy Frandsen, President, Detroit Steel Products; Clay T. Snider, Vice-president, Minneapolis-Honeywell Regulator Co.; E. J. Lawson, Secretary, Aluminum Company of America; E. Phil Filsinger, Treasurer, Hermosa Tile Division, Gladding, McBean & Company. Office of the Secy., 1145 Wilshire Blvd., Los Angeles 17.

Producers' Council — Northern California Chapter (See Special Page)

Construction Specifications Institute—Los Angeles:
R. R. Coghlan, Jr., President; George Lamb, Vice-President; Peter Vogel, Secretary; Harry L. Miller, Treasurer.

Construction Specifications Institute—San Francisco:
Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Conley, Secretary. Office of Secy., 1245 Selby St., San Francisco 24.

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San Francisco, taking as his subject window walls and describing in detail their design, purpose and relative costs.

The Club's annual picnic was observed on the 14th in Oakland's Redwood Regional Park. A full program of outdoor games, hot dogs and lots of eats and refreshments was enjoyed by an unusually large turnout of members and guests.

## OREGON CHAPTER

Kenneth W. Brooks, Spokane architect, was the principal speaker at the Chapter's Second Annual Honor Awards Program meeting recently held in Seattle. He was also a member of the jury.

The Annual Chapter picnic was observed this month at Avalon Park with arrangements in charge of DiBenedetto.

Recent new members include: Benjamin E. Cave, Corporate Member. Mary Alice Hutchins has transferred to the Hawaii Chapter.

## COAST VALLEYS CHAPTER

"The World of Mosaics" was the title of a motion picture shown at the June meeting held in Palo Alto, with Mary Henry discussing Mosaic Art.

The regular July and August meetings will be combined into a joint meeting with the Engineers, arrangements being conducted by Frank Treseder.

Announcement was made that the September meeting would be held at the winery of Paul Maisson and will be a joint meeting with the WAL.

## NOW UNIVERSITY OF WASHINGTON COLLEGE OF ARCHITECTURE

The University of Washington School of Architecture, which has been a unit of the College of Arts and Sciences since 1935, has been given status as an autonomous college by the Board of Regents.

The new college, to be known as the College of Architecture and Urban Planning, has an enrollment of approximately 265 students and 18 faculty members. Prof. Arthur P. Herrman, director of the school, has been named acting dean of the new college.

The change in status from a professional school under the College of Arts and Sciences to that of an independent college of the University has long been supported by professional architectural organizations,

(See Page 30)

# WITH THE ENGINEERS

Structural Engineers Association of California

Henry M. Layne, President; Howard A. Schirmer, Vice-President; H. L. Manley, Secy.-Treas. Directors—Chas. De Maria, Wesley T. Hayes, Henry M. Layne, H. L. Manle, J. G. Middleton, J. F. Meehan, Clarence E. Rinne, A. A. Sauer, Howard A. Schirmer, and William T. Wheeler. Office of Secty., 9020 Balcom Ave., Northridge, Calif.

Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Walter L. Dickey, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

C. M Herd, President (Sacramento); L. F. Greene, Vice-President (Sacramento); J. F. Meehan, Secy.-Treas. Directors: C. M. Herd, L. F. Greene, L. G. Amundsen, W. A. Buehler, R. W. Hutchinson. Office of Secy., 68 Aiken Way, Sacramento.

American Society of Civil Engineers
Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Sec.y-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## AMERICAN ROCKET SOCIETY MEETS IN SAN FRANCISCO

Missile scientists and engineers met in San Francisco recently to hear 34 technical papers delivered during eight sessions. The semi-annual meeting of the American Rocket Society, on the eve of the International Geophysical Year, disclosed that the most dramatic single project of the IGY's year and a half of world exploration starting July 1st would be the launching of the earth satellite.

The Northern California Section of the Rocket Society sponsored the meetings.

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

The Annual Structural Engineers Picnic featured July activities, with a full day and evening at the Sonoma Golf and Country Club in Sonoma County.

Entertainment included a golf tournament in charge of Ned Clyde; a baseball game in charge of Stan Gizienski; swimming, and a host of non-technical activities. A barbecued New York steak dinner highlighted the day's closing events.

## AMERICAN SOCIETY OF CIVIL ENGINEERS AWARDS

Recipients of the major awards for outstanding published technical papers that have contributed to the progress of the profession have been announced by The American Society of Civil Engineers.

Among those receiving this high national honor are:

William E. Wagner, Hydraulic Engineer, U.S. Bureau of Reclamation, Denver, Colorado—awarded the J. James R. Croes Medal by the American Society of Civil Engineers for his outstanding paper on "Determination of Pressure-Controlled Profiles."

Walter L. Dickey, Structural Engineer, and Glenn B. Woodruff, Consulting Engineer, of San Francisco—awarded the James Laurie Prize for their paper on

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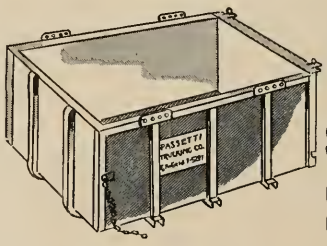

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American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy , c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

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"The Vibrations of Steel Stacks."

Wesley J. Holtz and Harold J. Gibbs—awarded the Arthur M. Wellington Prize for their paper "Engineering Problems of Expansive Clays."

Norman H. Brooks and Alfred C. Ingersoll, and Jack E. McKee, all of Pasadena, California Institute of Technology—awarded the Rudolph Hering Medal for their paper on "Fundamental Concepts of Rectangular Settling Tanks."

David J. Peery, Seltena Beach, California—awarded the Moiseiff Award for his paper on "An Influence-Line Analysis for Suspension Bridges."

Presentations of the awards will be made at the Society's October meeting in New York City.

## SOCIETY OF AMERICAN MILITARY ENGINEERS—SAN FRANCISCO POST

"Piercing the Unknown" was the subject of a talk by Bob Kester at the July meeting held in the Presidio Officers Club, San Francisco. He pointed out that the use of electronic computers is rapidly becoming a "must" in industry and government, and described the application and scientific phases of engineering computation in the larger computer systems. Use of color film illustrated numerous applications.

**COL. EDWIN M. EADS, United States Air Force, President**

Colonel Edwin M. Eads, USAF Installations Representative, South Pacific Region, San Francisco, was elevated to the office of Post President with the transfer of Cdr. Wm. J. Valentine, USN, to a new assignment in Kansas City. Col. Eads has been serving as 1st vice-president of the organization. C. R. Graff has been appointed 1st vice-president and Col. Seymour A. Potter, Jr. has been named 2nd vice-president. Roger L. Cairns, USAF, replaces Joseph D. Boitano, Jr., as secretary.

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JAMES P. HAWKE is now Chief Engineer with the J. H. Pomeroy Co., Inc., 3625 W. 6th St., Los Angeles. He was formerly associated with the firm of Stone & Webter Engineering Corp., Boston, Mass.

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## A.I.A. ACTIVITIES

(From Page 27)

with the belief that professional objectives could be achieved better and more rapidly through autonomy.

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### SAN DIEGO CHAPTER

Irving Meyers exhibited a number of colored slides on Mexican architecture and art at the July meeting held in Madeleine's.

Announcement was made that the Honor Awards Program would be renewed in the near future, with winners being announced at the annual California Council convention to be held at Coronado in October.

### NORTHWEST A.I.A. ANNUAL CONFERENCE

The Sixth Annual Conference will be held at Gearhart, Oregon, October 17-20, with the theme of the meeting being "Expanding the Profession of Architecture."

Among outstanding speakers who will appear on the business program are Jose Louis Sert, Dean of the Graduate School of Design, Harvard University, Cambridge, Mass.; Leon Chatelain, Jr., President of the American Institute of Architects; Thomas Creighton, editor, Progressive Architecture; Henry Hill, Architect, San Francisco; and Joseph McCarthy, FAIA of San Francisco.

The four day program will include seminars, exhibitions, and numerous recreational activities.

### NORTHERN CALIFORNIA CHAPTER

"Self Examination" was the theme of the July meeting with a panel of members expressing their opinion as to whether architects who do a poor job should be allowed to obtain or maintain their membership in the AIA.

John Lyon Reid, FAIA, retiring president of the California Council, AIA, served as moderator of the panel comprised of Wm. Stephen Allen, Henry Schubart, and George Rockrise.

"The object of this type of program," declared William Corlett, Chapter president, "is to determine membership thinking and to formulate a long-term, positive program in which all members can and will participate."

The meeting was held in DiMaggio's Restaurant on Fisherman's Wharf, San Francisco.

### W.A.L., SAN FRANCISCO

Mrs. Wendell R. Spackman was recently chosen president of the Women's Architectural League, San Francisco. Elected to serve with her during the ensuing year were: Mrs. Robert Laverty, vice-president—

(See Page 32)

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### NAHB AND AIA JOIN IN HOME CAMPAIGN

The National Association of Home Builders and The American Institute of Architects have announced a nation-wide campaign "to improve American living."

Top officials of both organizations met recently in Washington, D.C., together with representative builders, to explore the possibility of a cooperative program aimed at betterment of American housing and residential environment.

In a joint statement by Leon Chatelain, Jr., AIA president, and George S. Goodyear, NAHB president, it was stated "We firmly believe this activity signals a movement of great importance to the public. Beginning in July, we propose to hold a series of round-table conferences to which we will invite not only our own leading representatives, but lenders, appraisers, as well as those who influence the path of housing through governmental action at all levels."

### CHURCH BUILDING CONFERENCE SET

A conference on Church Building will be held jointly by the Department of Church Building, National Council of Churches, and the Church Architectural Guild of America in cooperation with the Detroit Council of Churches, February 18-20, 1958, in the Veterans' Memorial Building, Detroit, Michigan, according to an advance announcement.

## JOHN K. LYNCH HEADS NEW SEATTLE OFFICE

John K. Lynch has been appointed to head the new Seattle office of Burns and Roe, Inc., engineers and constructors, whose headquarters are located in New York City.

The new offices at 1903 Third Ave., Seattle, will function as a liaison between the company's main office and its client, the Boeing Airplane Company, for which Burns and Roe has been providing design and engineering services for missile ground support facilities.

## ARCHITECTS IN NEW OFFICES

The architectural firm of Beland and Gianelli have announced the removal of offices to Suite A, 1221 Monterey Street, Vallejo, California, where they have larger facilities for operation of their architectural practice.

John A. Beland, AIA, and Robert J. Gianelli, AIA, comprise the firm.

## WM. A. LLEWELLYN NEW SALES REPRESENTATIVE

William A. Llewellyn has been appointed a sales representative in the Southern California area for Prescolite Mfg. Corp. of Berkeley, according to an announcement by W. D. Runswick, vice-president of the firm.

Llewellyn has been associated with the lighting industry in production and sales for a number of years. He will make his headquarters in the Los Angeles offices of Prescolite.

## RICHMOND HOSPITAL

Architect Charles F. Strothoff, 1855 Market St., San Francisco, is completing drawings for construction of an addition to the Richmond Hospital, providing facilities for a new kitchen.

## ARCHITECTS MOVE INTO NEW OFFICE

The firm of Hale and Jacobsohn, AIA, Architects, have announced the removal of their offices to spacious quarters in Mission San Jose, corner of Highway 9 and the Mission-Irvington Road, opposite the Old Mission, in Fremont, California.

## VICTOR GRUEN ASSOCIATES OPEN HAWAIIAN OFFICES

Victor Gruen, Associates, Los Angeles architectural firm, has opened new offices in Honolulu, which will be in charge of Neal Butler, an Associate in the firm, and project coordinator for the new Waialae Shopping Center.

Announcement was also made of the appointment of Marcel Sedletzky and Franz Szymanski as new Associates of the firm. Sedletzky is planner and coordinator of the $7,000,000 Lamirada Shopping Center in Lamirada, California, and has been with Gruen for 5 years, while Szymanski is assistant to the head of the structural department.

## ARCHITECT IS COMMISSIONED

Architect William Harrison, 816 W. 5th St., Los Angeles, has been commissioned by the Trustees of the Fullerton High School and Junior College District to draft plans and specifications for construction of a new High School to be built on a 47-acre site at the intersection of Cypress Ave. and Dorothy Lane in Fullerton.

Cost of the site was $305,000 and its use as a campus was approved by the Fullerton City Council.

## SANTA CLARA NEW COUNTY OFFICES

Architects Kurt Gross, 390 Park Ave., San Jose, and Allan M. Walter & Associates, 45 E. William St., San Jose, are preparing plans and specifications for construction of a new County Office Building to be built in the Civic Center of San Jose at an estimated cost of $1,483,000.

The 4-story, 80 x 200 ft. structure will provide facilities for the county tax collector, assessor, controller, purchasing agents, treasurer, central telephone board, superintendent of schools, and board of supervisors chambers.

## ARCHITECTS SELECTED

The Board of Regents of the University of California, Berkeley, have commissioned architects Vernon DeMars of Berkeley and Donald L. Hardison & Associates, 160 Broadway, Richmond, to draft plans and specifications for construction of a new Student Center on the Berkeley campus of the university. Cost of the project is estimated at $10,000,000.

All present buildings on the site at Bancroft, Dana St. and Strawberry Creek will be moved.


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Architect: California Division of Architecture

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## A.I.A. ACTIVITIES

(From Page 30)

projects; Elizabeth K. Thompson, vice-president—programs; Mrs. Bruce Heiser, vice-president—membership; Mrs. Ernest Born, corresponding secretary; Mrs. John Wilkinson, recording secretary, and Mrs. John Gloe, treasurer.

### CALIFORNIA COUNCIL A.I.A.

R. Buckminster Fuller, whose challenging structural concepts have aroused international interest, will be one of the principal speakers at the 12th Annual Convention, October 2-6, at Hotel del Coronado, Wallace Bonsall, chairman of the Convention Advisory Committee, announced. Fuller will deliver the keynote address on Friday afternoon, speaking on the theme "Design Through Structure."

Convention sessions this year are being planned for general professional interest. Entertainment includes a chartered ferry boat tour of San Diego harbor, annual banquet and a Calypso dance sponsored by the Women's Architectural League. The final day of the conference will be turned over to the Producers' Council, who have arranged an outstanding program.

### SOUTHERN CALIFORNIA CHAPTER

"Integration of Arts in Architecture" was the subject of a panel discussion at the July meeting, held in the Chapman Park Hotel, Los Angeles, with panel members comprising Arthur Millier, Art Critic; Bernard Rosenthal, Sculptor; Joseph Young, Mosaic Muralist; and Gregory Ain, Architect. John Rex served as moderator.

### PASADENA CHAPTER

"Architectural Art Work as Related to Today's Architecture" was the subject of the July meeting held in Eaton's Restaurant, Pasadena, with Ragnar C. Qvale, architect and founder of Q.A. Architctural Arts, an association of artists and delineators, the principal speaker. He gave an illustrated lecture touching on the subject of color in architecture, methods and technique on rendering, miniature models and their uses.

New members include Russell W. Hobbs, Covina.

## BETTER LIVING...

(From Page 25)

an atomic power plant.

Another feature that belongs largely to the future and which has given rise to the talk of a "second industrial revolution" is what is known as "automation". Just what wonders in the form of new technical achievements and added time for leisure automation will create is as yet unpredictable. But you should find reassurance in the fact that this development is in the hands of professional engineers.

To guide the technical development of the future

we need engineers, and we need them at a much greater rate than they are being turned out of our colleges today. The work of a professional engineer is interesting and an engineering career is a rewarding one. Young people, both boys and girls, must be encouraged to enter the engineering profession. Our high schools must cooperate by introducing more courses in mathematics, physics, and chemistry, the subjects on which all engineering principles are based. Your help is needed in carrying out such improvements. I hope I have given you a message . . . so that this country may have the best engineers possible, and have enough of them. Only then can we be sure to have not just living, but "Better Living Through Engineering".

## ARTHUR BROWN, JR.

(From Page 22)

the largest structures in the capital until the Pentagon was built.

Among his residential designs were homes for W. W. Crocker, Dr. Charles Crocker, Truxton Beale, Mrs. Tobin Clark, Frank King and Frank Fuller.

Mr. Brown was born in Oakland and graduated from the University of California's College of Civil Engineering in 1896. He studied at the Ecole des Beaux Arts in Paris and graduated in 1901 after winning 12 medals and three major prizes there.

In 1926 he was made a member of the Institut de France, a highly unusual honor for an American. In 1931 he was given an honorary doctor of laws degree by his alma mater, and in 1943 he was elected to the American Academy of Arts and Letters. He was also an officer of the French Legion of Honor.

During his long career Mr. Brown had been associate architect at the Panama Pacific Exposition here in 1915, had served on the architectural commission for the 1933 Chicago World's Fair, and was chairman of the architectural commission for the San Francisco Exposition in 1939 and 1940.

He had taught architecture at Harvard and the University of California, and was Supervising Architect on the Berkeley campus from 1938 to 1948.

## NEWS & COMMENT ON ART

(From Page 7)

Photography—Edward Kamenski, West Los Angeles; Magda R. White, Sacramento; and Fred R. Archer, Los Angeles.

### KATE NEIL KINLEY MEMORIAL FELLOWSHIP AWARD ANNOUNCED

Paul Vazquez of Tenafly, New Jersey, has been awarded the 26th annual Kate Neal Kinley Memorial Fellowship, with Miss Rosalind Davidson of Peoria being named alternate, according to an announcement of the Awards Committee comprising Allen S. Weller, Chairman, Duane A. Branigan and James R. Shipley.

Vazquez, a painter, was born in Brooklyn and received the B.F.A. degree from Ohio Wesleyan University in 1956, and has been a graduate student at the University of Illinois since February 1956, serving as graduate assistant in the Department of Art and teaching courses in freshman free hand drawing and in Sophomore life drawing. He proposes to spend the period of his fellowship in European travel and residence, particularly in Spain.

Miss Davidson, a cellist, was born in Toronto and received her Bachelor of Music degree at the University of Illinois in 1957.

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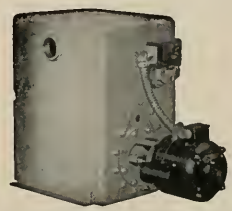
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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**HYDRAULICS of MULTIPLE MAINS. By Oscar G. Goldman, B.S. Columbia Graphs, Columbia, Conn. Price $6.50.**

This book will enable the engineers, responsible for supplying water to the various towns and cities, to determine information required for the design of an adequate water supply system and its subsequent solution, quickly, easily and exactly. From simplified charts, nomographs and the various practical problems which ilustrate their use, it is now possible for the engineer to design an adequate water supply system with a minimum of time and effort. The author, superintendent, City Distribution Division, San Francisco Water Department, deals with problems of pipe line sizes, existing, recommended, and results for the present and future.

**OPERATIVE REMODELING. United States Gypsum Company and National Association of Home Builders, 300 W. Adams St., Chicago, Ill.**

A book for home builders researched and written as a textbook to help overcome the potential catastrophe facing older homes, the country's largest single investment. It points the way to a new market of revitalizing and modernizing our older homes to standards of convenience and livability.

**THE CRACK IN THE PICTURE WINDOW. By John Keats. Houghton Miffin Company, Boston; The Riverside Press, Cambridge. Price $3.00.**

"For literaly nothing down—other than a simple promise to pay, and pay, and pay until the end of your life—you too, like a man I'm going to call John Drone, can find a box of your own in one of the fresh-air slums we're building around the edges of America's cities." Thus the author opens this report on every aspect of the huge modern housing developments, from the ground up, supporting his account by solid facts and figures. He illustrates the worst aspects of suburban living, asks who is responsible, and suggests what can be done to break up the regimentation.

**BUILDING, U.S.A.—The men and methods that influence architecture in America today. McGraw-Hill Book Company, 330 West 42nd St., New York 36, N. Y. Price $3.95.**

Compiled by the editors of Architectural Forum, you see evidence of our dynamic building age, new skyscrapers, mile after mile of new mass-produced homes, acres of industrial plants, new schools, churches, supermarkerts, and air line terminals. Nowhere in the world are men building so fast or so vigorously. But how does it happen? What does it mean? What are the forces that shape it? The editors of this book give you a fascinating and thought provoking inside picture of what goes on in the tough and beguiling enterprise of building. It is an exciting story to everyone interested in the changing face of American building, the men and reasons behind it, and its future trends.

## NEW CATALOGUES AVAILABLE

***Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.***

**How to build homes that will outlive the mortgage.** A helpful booklet shows where and how to use pressure-treated lumber to protect the huge future investments of builders, dealers, mortgage lenders, loan-insuring agencies, and owners of new homes; profusely illustrated costly decay and termite damage in dwellings built with untreated lumber; map and list of states divides country into three regions according to degree of steadily expanding termite infestation. Free copy write DEPT-A&E, American Wood Preservers Institute, 111 W. Washington St., Chicago 2, Ill.

**"The Picture Book of Wrought Iron".** New 12-page brochure contains many photographs of typical installations of exterior and interior wrought iron; serves as catalog and consumer folder with design and text "pitched" to the consumer pointing up product advantages, layout with two-color printing; covers all custom crafted wrought iron designs together with

wrought iron accessories, standard size rails with awning columns, lanterns and posts, and other allied building products. Free copy write DEPT-A&E, Locke Mfg. Co., Lodi, Ohio.

**Diffuser selection manual.** New 80-page Selection Manual (AIA File No. 30-J) on air diffusers for air conditioning, heating and ventilating systems; contains numerous diagrams, tables and photographs to aid in the correct selection of diffusers and accessories for all-air high velocity as well as conventional air conditioning systems and units in hotels, hospitals, schools, stores, theatres, churches, restaurants, and commercial office buildings; static pressure factors and typical installations. Free copy write DEPT-A&E, Anemostat Corpn. of America, New York, N. Y.

**Durable concrete topping.** New catalog (AIA 21F & 23D) describes "Super-Bondsit", a white liquid latex emulsion substituted for most of the mixing water in mortars, cement plasters, concretes; requires ¼" topping to resurface, patch or repair either interior or exterior concrete surfaces; mixtures are self curing, withstand heavy impacts and chemical spillage; illustrated case histories, mixing and application instructions fully described. Free copy write DEPT-A&E, A. C. Horn Co, Inc, 252 Townsend St, San Francisco, California, or 10-10 44th Ave, Long Island City, N. Y.

**Use of marble.** "A Story about Man and His Search for Beauty" is the title of a booklet designed for architect, engineer, contractor, planning commissions, to acquaint them with the use of marble in construction; 52 pages containing many illustrations, including some of the world's greatest architecture, many beautiful present day examples of the varied use of marbe and its production. Limited copies available, write DEPT-A&E, Carthage Marble Corp., Box N 612, Carthage, Mo.

**Window glazing in schools.** New, comprehensive catalog contains detailed data on the unusually large amount of Plexiglas used for window glazing in schools; describes sky glare control, light diffusion, and reduction of Solar heat transmission; additional data of value to architects, engineers, contractors and designers. Brochures available on product use in Architecture; window glazing; window breakage reduction. Free copies write DEPT-A&E, Plastic Sales & Service, 409 Bryant St, San Francisco.

**Aluminum in school construction.** A 64-page illustrated booklet prepared by the Technical Publications Department of Kaiser Aluminum & Chemical Sales, Inc., is available to school officials, architects, engineers, planning commissions; designed to better visualize recent architectural advances made by aluminum in school construction; 88 photographs and drawings; 3 sections devoted to 1) economy in planning, 2) uses of aluminum in newer school construction, and 3) present and potential uses of aluminum. Free copy write DEPT-A&E, Technical Editor, Kaiser Aluminum & Chemical Sales, Inc., 919 N. Michigan Ave., Chicago, Ill.

**Construction stake application.** New brochure, in color, describes how time is saved and money earned with C&H construction stakes and accessories; photographs and drawings show many uses. For free copy write DEPT-A&E, C&H Specialties Co., 909 Camelia St., Berkeley 6, Calif.


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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$165.00 up (according to class of work).
Face Brick—Per 1 M laid—$250.00 and up (according to class of work).
Brick Steps—$2.00 lin. ft. & up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M F.O.B. Plant | 235.30 |

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb | 5.05 |
| Asphalt roofing, 15-lbs | 2.70 |
| Asphalt roofing, 30-lbs | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| **Sand—** | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**

Common (all brands, paper sacks) Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl. ..... 4.14
Cash discount on carload lots, 10c a bbl., Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L. ..... 2%
Trinity White, Medusa White, Calaveras White } 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20
Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | 8a-salt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | .... | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ⅛-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $12.00 per square and up.
Hot coating work, $5.00 per square & up.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

### ELECTRIC WIRING

—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.25 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
**Mastic Wear Coat**—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**
**Oak Flooring—T & G—Unfin.—**

| | 25/32x2¼ | ½x2 | ⅜x2 | ⅛x2 |
|---|---|---|---|---|
| | $425 | $405 | $ | $ |
| Clear Qtd., White | 405 | 380 | | |
| Clear Qtd., Red | 355 | 340 | | |
| Select Qtd., Red or White | 355 | 340 | 335 | 315 |
| Clear Pln., Red or White | 340 | 330 | 325 | 300 |
| Select Pln., Red or White | 315 | 310 | 305 | 280 |
| #1 Common, Red or White | 305 | | | |
| #2 Common, Red or White | | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 25/32 x 2¼ | 390.00 | 381.00 |
| 25/32 x 2¾ | 375.00 | 355.00 |
| 25/32 x 3¼ | 395.00 | 375.00 |
| 33/32 x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| 25/32 x 2¼ First Grade | $390.00 |
| 25/32 x 2¼ 2nd Grade | 365.00 |
| 25/32 x 2¼ 2nd & Btr. Grade | 375.00 |
| 25/32 x 2¼ 3rd Grade | 240.00 |
| 33/32 x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| 33/32 x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |
| Floor Layer Wage $2.83 per hr. | |

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| ¼ in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| ¼ in. Heat Absorbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| ¼ in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| ¼ in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| | |
|---|---|
| **Furnaces—Gas Fired** | |
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| **Water Heaters—5-year guarantee** | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less then 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Siselation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring ..... | $225.00 |
| "C" and better—all ..... | 215.00 |
| "D" and better—all ..... | 145.00 |
| Rwd. Rustic—"A" grade, medium dry ..... | 185.00 |
| 8 to 24 ft. | |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-515 ..... $120.00
½-inch, 4.0x8.0-515 ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plyform ..... 160.00

**Shingles** (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tepered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $35 per M to ebove
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .90 |
| Three-coat work | per yard | 1.35 |
| Cold water painting | per yard | .45 |
| Whitewashing | per yard | .25 |

| Linseed Oil, Strictly Pure (8asis 7¾ lbs. per gal.) | Raw | Wholesale Boiled |
|---|---|---|
| Light iron drums ..... per gal. | $2.28 | $2.34 |
| 5-gallon cans ..... per gal. | 2.40 | 2.46 |
| 1-gallon cans ..... each | 2.52 | 2.58 |
| Quart cans ..... each | .71 | .72 |
| Pint cans ..... each | .38 | .39 |
| ½-pint cans ..... each | .24 | .24 |

| Turpentine (8asis, 7.2 lbs. per gal.) | Pure Gum Spirits |
|---|---|
| Light iron drums ..... per gal. | $1.65 |
| 5-gallon cans ..... per gal. | 1.76 |
| 1-gallon cans ..... each | 1.88 |
| Quart cans ..... each | .54 |
| Pint cans ..... each | .31 |
| ½-pint cans ..... each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ | $ |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.75 lineal foot |
| 8-inch | 3.25 lineal foot |
| 10-inch | 4.10 lineal foot |
| 12-inch | 5.20 lineal foot |
| Installation | .75c to $1.50 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hat roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hat roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime- $4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .26
Standard, 6-in. ..... .46
Standard, 8-in. ..... .66
Standard, 12 in. ..... 1.30
Standard, 24-in. ..... 5.41
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless.
(unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. .. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.95 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼", @ $1.95 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile, @ $1.70 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" - 3/16". $ .25 - $ .35 sq. ft. Light shades slightly higher.
Cork Tile—$.60 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each | $ .17 |

| Kraftile: Per square foot Patio Tile—Niles Red | Small Lots | Large Lots |
|---|---|---|
| 12 x 12 x ⅞-inch, plain | $ .28 | $ .253 |
| 6 x 12 x ⅞-inch, plain | .295 | .265 |
| 6 x 6 x ⅞-inch, plain | .32 | .287 |

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
Face Brick
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121
KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
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Oakland: 940 Arlington Ave., OL 2-6000
LOUIS V. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

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San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

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San Francisco: 765 Folsom St., EX 2-3142

**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco: 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
K-LATH CORP.
Alhambra: 909 So. Fremont St., Alhambra
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Shotwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
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San Francisco: 44 San Jose Ave., MI 7-6414

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SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT SALES CO. OF NO. CALIF.
Berkeley: 1000 Ashby Ave., TH 3-4964

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
D. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHNERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**SPRINKLERS**
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
San Francisco: 198 Mississippi St., UN 1-0273

**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
Los Angeles: 3450 Wilshire Blvd., DU 8-9591

**TIMBER TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**TRUCKING**
PASSETTI TRUCKING CO.
San Francisco: 264 Clementina St., GA 1-5297

**UNDERPINNING & SHORING**
D. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

**WALL PAPER**
WALLPAPERS, INC.
Oakland: 384 Grand Ave., GL 2-0451

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE 1-1345

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C.: 681 E. Hastings St.
Seattle: 304 So. Alaskan Way

**WINDOW SHADES**
SHADES, INC.
San Francisco: 80 Tehama St., DO 2-7092

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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.675 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.75 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.375 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm-–Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**HIGH SCHOOL ADD'N,** Selma, Fresno county. Selma Union High School District, Selma, owner. Construction of new facilities to existing building—$1,314,052. ARCHITECT: Walter Wagner & Partners, 1830 Van Vess, Fresno. GENERAL CONTRACTOR: Clarence Ward Const. Co., 4323 E. Harvey, Fresno.

**LIBRARY & HALL,** Porterville, Tulare county. City of Porterville, owner. Construction of a new City Library anl Hall—$124,488. ARCHITECT: Robert Eddy, 2901 H St., Bakersfield. GENERAL CONTRACTOR: Willard Michael, 1765 Burton Way, Bakersfield.

**AMERICAN RIVER JR. COLLEGE,** Campus near Sacramento. American River Jr. College, Del Paso Heights, Sacramento county owner. 1-Story tilt-up construction, concrete, wood frame, steel roof beams, composition roofing, concrete slab floors, masonry and brick trim; facilities for creative arts, students building, gymnasium, library building—$1,865,000. ARCHITECT: Barovetto & Thomas, 718 Alhambra Blvd., Sacramento. GENERAL CONTRACTOR: Cal-Central Const. Co., 7500 14th Ave., Sacramento.

**MFG. BLDG.,** San Leandro, Alameda county. United Centrifugal Pumps Inc., Oakland, owner. 1-Story tilt-up concrete construction; 117,000 sq. ft. of area—$1,000,000. ARCHITECT: Thomas M. Culbertson, 806 Hearst Ave., Berkeley. STRUCTURAL ENGINEER: Hugh O'Neil, 610 16th St., Oakland.

**RESEARCH LABORATORY,** Stanford Village, Menlo Park, San Mateo county. Stanford Research Institute, Menlo Park, owner. Construction of a new 100,000 sq. ft. brick and structural steel office building; also a 20,000 sq. ft. brick and structural steel laboratory building—$2,500,000. ARCHITECT: J. E. Stanton and Wm. F. Stockwell, 627 Carondelet St., Los Angeles. GENERAL CONTRACTOR: Williams & Burrows, 500 Harbor Rd., Belmont.

**HOSPITAL ADD'N,** Turlock, Stanislaus county. Emanuel Hospital, Turlock, owner. Construction of 2-stories, and basement, Class A, reinforced concrete and some structural steel; 6,000 sq. ft. area; facilities for operating rooms, and delivery rooms—$262,654. ARCHITECT: Donald Powers Smith, 133 Kearny St., San Francisco. GENERAL CONTRACTOR: Beacon Const. Co., 1745 Filbert St., San Francisco.

**GOLF & COUNTRY CLUB BLDG.,** Del Paso Heights, Sacramento. Del Paso Heights Country Club, Sacramento, owner. 1-Story plywood and hardwood building to provide facilities for cocktail lounge, lockers and shower rooms, toilets, concrete slab floors—$68,899. ARCHITECT: Rickey & Brooks (Kenneth Rickey, archi-

tect), 2015 J St., Sacramento. GENERAL CONTRACTOR: Thomas Sertich, 4080 24th St., Sacramento, and Harry Robertson, 2917 T St., Sacramento (Joint Venture).

**CAFETERIA BLDG.,** Canoga Park, Los Angeles. Atomics International Division of North American Aviation, owner. Concrete block, composition roofing, terrazzo, ceramic tile, quarry tile, vinyl tile and cement floors, interior plaster, acoustical, air conditioning, metal toilet stalls, insulation, fire sprinkler system, structural steel; 115x 92 feet in area. ARCHITECT: James H. Van Dyke and ENGINEER: S. D. Barnes, 2234 Beverly Blvd., Los Angeles. GENERAL CONTRACTOR: Richard M. Lane Co., 4719 Exposition Blvd., Los Angeles.

**COMMERCIAL BLDG.,** Chico, Butte county. Victor Industries, Inc., owner. New commercial building—$204,194. CIVIL ENGINEER: Carl J. Jamison, 1806 Colfax St., Concord. GENERAL CONTRACTOR: Associated Const. & Engineering Co., 2903 Geneva St., San Francisco.

**CENTRAL SCHOOL ADD'N,** Oroville, Butte county. Oroville Elementary School District, Oroville, owner. Additional facilities consist of 6 classrooms and a shelter area—$85,058. ARCHITECT: Koblik & Fisher, 2203 13th St., Sacramento. GENERAL CONTRACTOR: J. S. McAbery, P.O. Box 3455, Oroville.

**ADDITION TO BANK,** Pacific Palisades, Los Anegles county. Santa Monica Commercial Savings Bank, owner. Alterations and additions to present bank building include converting adjacent store building into bank facilities; acoustic tile ceilings, partitions, toilets, electrical fixtures, cabinet work, drive-in facilities, forced air heating and ventilating, asphalt tile flooring. ARCHITECT: Weldon J. Fulton & Associates, 1010 Wilshire Blvd., Santa Monica. GENERAL CONTRACTOR: Wilson Bros., 1129 Montana Ave., Santa Monica.

**OLINDA ELEMENTARY SCHOOL,** El Sobrante, Contra Costa county. Sheldon Elementary School District, El Sobrante, owner. Frame and stucco construction; 8 classrooms, kindergarten and toilet facilities—$194,341. ARCHITECT: John Hudspeth, 339 15th St., Oakland. GENERAL CONTRACTOR: Fred C. Von Guenthner, P.O. Box 154, Orinda.

**HIGH SCHOOL,** Boonville, Mendocino county. Anderson Valley Union High School District, Boonville, owner. 1-Story frame and stucco, concrete block; 41,000 sq. ft. area; facilities for administration, 7 classrooms, science, home making, commercial, arts and crafts, shops, toilets, kitchen, gymnasium, shower and locker rooms—$829,970. ARCHITECT: Hansen & Winkler, 251 Post St., San Francisco. GENERAL CONTRACTOR: Reynolds Const. Co., 55 Mt. View Ave., Santa Rosa.

**POST CHAPEL,** Fort Ord, Monterey county. U. S. Army, Corps Engineers, San Francisco, owner. New Post Chapel with educational facilities on the U. S. Military Reservation comprising 4 reinforced concrete and masonry unit block buildings; theatre building without stage, 15,000 sq. ft.; Post Chapel and educational area, 24,150 sq. ft.; regimental chapel 10,000 sq. ft. of area—$1,146,054. GENERAL CONTRACTOR: Harold C. Geyer, P.O. Box 1190, Monterey.

**HOSPITAL ADD'N,** Monterey. Monterey Hospital, Lid, Monterey, owner. 1-story steel frame, treated lumber for subflooring, plaster walls and ceilings, vinyl tile, automatic sprinkler system, built-up roofing; facilities for doctors' and nurses' lounge room—$28,397. ARCHITECT: Wallace Holm, 321 Webster St., Monterey. GENERAL CONTRACTOR: Henry A. Jewell & Associates, 620 Lake St., Seaside.

**SUNDAY SCHOOL ADD'N,** Oakland, Alameda county. First Congregational Church, Oakland, owner. 1-Story addition to the present building, reinforced concrete, lightweight concrete slab roof; 10 classrooms, 3 toilet rooms—$49,490. ARCHITECT: Lawrence K. Cone, 5965 Ocean View Drive, Oakland. GENERAL CONTRACTOR: N. H. Sjoberg & Sons, 5604 E. 16th St., Oakland.

**SWIMMING POOL & BATH HOUSE,** Lodi. San Joaquin county. City of Lodi, owner. Concrete swimming pool and concrete block bath house, concrete deck areas—$34,790. ARCHITECT: Ernst & Lloyd, El Dorado St., Stockton. GENERAL CONTRACTOR: Webb Const. Co., Harding Way, Stockton.

**JUVENILE HALL,** Redding, Shasta County. County of Shasta, Redding, owner. 1-story reinforced concrete and frame construction—$101,467. ARCHITECT: E. Geoffrey Bangs, 428 13th St., Oakland. GENERAL CONTRACTOR: Singleton Const. Co., P.O. Box 271, Eureka.

**NEW PRIORY,** Woodside, San Mateo County. Benedictine Order, San Fran-


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cisco, owner. 1-story wood frame with built-up roofing—$43,360. ARCHITECT: White & Herman, 75 Castle St., San Francisco. GENERAL CONTRACTOR: George Dugan, 618 Woodside Road, Redwood City.

**SUTTER CREEK SCHOOL,** Sutter Creek, Amador county. Oro Madre Unified Elementary District, Sutter Creek, owner. Frame and stucco construction; facilities for administration, 6 classrooms, toilet facilities—$122,833. ARCHITECT: Koblik & Fisher, 2203 13th St., Sacramento. GENERAL CONTRACTOR: H. J. Harlow & Sons, 5411 J St., Sacramento.

**AUTO AGENCY,** Richmond, Contra Costa County. 1-story concrete block construction, steel frame, tar and gravel roof — $94,975. ARCHITECT: George A. Swallow, 6302 Walla Ave., El Cerrito. GENERAL CONTRACTOR: R. E. Bartlett, 223 Willamette Ave., Berkeley.

**ELEMENTARY SCHOOL,** Walt Whitman, San Diego. San Diego Unified School District, owner. New Walt Whitman Elementary School in San Diego, 12 classrooms, 2 kindergartens, administration, assembly, kitchen-cafeteria and related facilities—$375,355. ARCHITECT: Wulff & Field, 1975 5th Ave., San Diego. GENERAL CONTRACTOR: B. C. Hammann, Rt. 2, Box 456, San Diego.

**ENG-MFG. PLANT,** Pasadena, Los Angeles County. Burroughs Corp., Los Angeles, owner. 2 and 3-story air conditioned building, reinforced masonry and concrete, concrete walls, brick veneer facing; cafeteria, dining room, offices, mfg. area; 250,000 sq. ft. of area — $4,000,000. ARCHITECTS: Claud Beelman & Associates, with Associate Architects Ernest C. Wilson, Jr., and Robert E. Langdon, Jr. GENERAL CONTRACTOR: Carter Company.


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# IN THE NEWS

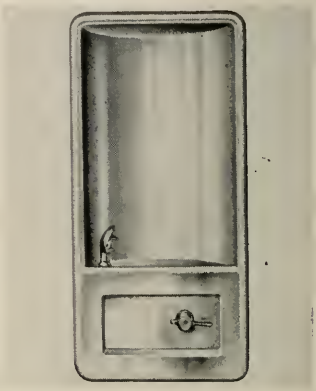
## DR. KERMIT A. SEEFELD ELECTED TO NATIONAL POST

Dr. Kermit A. Seefeld, chairman of the department of industrial arts at the University of California, Santa Barbara College, has been elected vice-president of the American Industrial Arts Association.

He is also vice-president of the National Association of Industrial Teachers-Educators.

## HAWS INTRODUCES NEW FOUNTAIN

A full-recessed drinking fountain, smoothly designed in 18 gauge, type 304, No. 4 finish, stainless steel, has been announced by the Haws Drinking Faucet Company of Berkeley.



The receptor, weighing less than thirty pounds, is effectively sound insulated and has a convenient removable front access panel. This model provides automatic stream control and a self-closing valve, operated by a chrome plated lever handle. The shielded anti-squirt fountain head is on a raised boss, and is locked to the receptor in a vandal-proof manner.

It is 30¼" high, 15¼" wide, and has a depth of 10¾". Complete data from Haws Drinking Fountain Company, Berkeley 10, California.

## WELTON BECKET DESIGNS PALO ALTO GAS STATION

New fashions in service stations are being developed in the Stanford Shopping Center, Palo Alto, with construction of a station designed by Welton Becket, FAIA, and Associates, architects and engineers.

Combining beauty with the normal utility of a service station, the station will feature tubular steel, plate glass, glazed brick, and porcelain enamel. A large free-standing metal canopy will protect the pump stations, and the exterior of the 1500 sq. ft. station will be completely landscaped to harmonize with the architectural design.

## CARNATION OPENS NEW SEATTLE PLANT

Alfred M. Ghormley, president, and Elbridge H. Stewart, chairman of the board, Carnation Company, participated in ceremonies dedicating the company's

new ultramodern fresh milk and ice cream plant this month.

Special features of the dedication events, which extended during the week of July 22-26, included open house for the dairy industry and press; home economists, dietitians and employees; and for producers and wholesalers.

Located at 2746 E. 45th St., near the University of Washington, the new plant has 132,975 sq. ft. of working area under one roof.

### HAYWARD GETS NEW SEARS ROEBUCK STORE

Architects Reynolds & Chamberlain, 3833 Piedmont Ave., Oakland, are completing plans and specifications for construction of a new 1-story, with full basement, store building near Hayward for Sears Roebuck & Co.

The new building will contain approximately 100,000 sq. ft. of area and will cost an estimated $3,500,000.

### COUNTY HEALTH CENTER BLDG.

Architect W. Newlon Green, 314 Village Lane, Los Gatos, is working on drawings for construction of a new 1-story County Health Center in San Mateo for the San Mateo County Board of Supervisors.

Of steel frame construction, the facilities will contain 7,000 sq. ft. of area and will cost an approximate $120,000.

### AUTO CLUB OFFICE SITE, COSTA MESA

Architect Gates W. Burrows, 1606 Bush St., Santa Ana, is preparing drawings for construction of a new district office building in Costa Mesa for the Auto Club of Southern California.

A new site has been acquired near the Costa Mesa City Hall on West 19th Street.

### NEW CHURCH FOR STOCKTON

Architect Carlton Steiner, 2941 Telegraph Ave., Berkeley, is completing drawings for construction of a 1-story new Church building in Stockton for the Central Methodist Church.

The new facilities will include a Fellowship Hall and classrooms; will be of concrete block construction, concrete beams and a tar and gravel roof.

### ARCHITECT EXPANDS PHOENIX OFFICES

The architectural firm of John Brenner and Associates, Architects, 97 West Lynwood Street, Phoenix, Arizona, has announced the admission of Henry M. Arnold, Architect, to membership in the firm.

A. John Brenner, AIA, and E. W. McIntire III, AIA, are the other firm members.

### OFFICE BUILDING FOR SACRAMENTO

The West America Engineering Company, 109 Stevenson St., San Francisco, has completed drawings for construction of a new 2-story office building in Sacramento for the Remington-Rand Division of the Sperry-Rand Corp. of New York.

The 12,000 sq. ft. building will be of reinforced concrete, brick and structural steel frame, aluminum framed curtain walls, insulated porcelain panels, air conditioning system, and parking areas. Cost is estimated at $250,000.

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plications, heating, air conditioning, processing, safety, convenience, and original equipment. Features automatic disc compensation, extremely tight shut-off, 150 lbs. pressure capacities on most sizes, no mounting restrictions, permanent lubrication, machine cut hardened steel gears, only eight moving parts, and entire unit is small enough to fit between 16" floor joists. Complete data from New England Gear Works, South End Road, Southington, Conn.

### CHALLENGE CREAM BUILDS PLANT

George J. Fosdyke, structural engineer, has completed plans and specifications for construction of a new modern retail dairy distributing plant in North Hollywood for the Challenge Cream & Butter Association.

The plans call for a relay station, office and garage building and installation of machinery and equipment for handling and distributing Challenge products throughout the San Fernando Valley.

### NEW FLEXIBLE SYSTEM FOR SHELF SUPPORTS

A simple, low cost method for supporting steel shelving and other fixtures on classroom, office and library walls is announced by W. R. Ames Company of San Francisco.

The "wall-hung" system offers full flexibility for installing, rearranging and removing shelving, display boards, blackboards, coat racks, lightweight desks and other similar furnishings. Using vertical, slotted steel columns that are easily installed at 36" intervals along walls, any standard bracket-equipped fixture can be quickly set in position, readjusted or interchanged as conditions require. All new wall-hung equipment is available in a choice of 18 attractive colors that harmonize with any room furnishing. Complete information from W. R. Ames Co., 150 Hooper St., San Francisco 7.

### TEACHERS CREDIT UNION BUILDS

Architects Douglas Honold and John Rex & Associates, Los Angeles, have prepared plans for construction of a 2-story $310,000 building at Temple and Rosnal Sts. for the Los Angeles Teachers Credit Union.

The building will contain 17,500 sq. ft. of area, and the second story, supported by exposed columns extending to the roof, will project over the first story, creating a covered areaway in front of windows of the ground-floor offices. More than 15,000 sq. ft. of parking area will adjoin the building.

### SAF-T-SHOWR IS NOW AVAILABLE

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### FIFTEEN STORY OFFICE BLDG.

Architect Claud Beelman & Associates, Robert E. Langdon, Jr., and Ernest C. Wilson, Jr., associate architects, 7421 Beverly Blvd., Los Angeles, are preparing drawings and specifications for construction of a 15-story office building in Los Angeles for the Spring Street Realty Company of Los Angeles.

The 200,000 sq. ft., 273 ft. high building will be of steel framing, granite and stone facing, electronically operated elevators, air conditioning, smog control equipment, movable partitions, three basement floors for auto parking. Estimated cost of the project is $10,000,000.

### LUTHERAN CHURCH ADDITION READIED

Architect James P. Lockett, Bank of America Building, Visaulia, is completing working drawings for construction of several additions to the Zion Lutheran Church in Terra Bella.

The work will include additions to the auditorium, organ, loft, and doubling of seating capacity.

### CRENSHAW SHOPPING CENTER EXPANDS

Construction of a seven unit retail shopping building located within the heart of Los Angeles' Crenshaw Shopping Center is under way.

The building is of functional design, wood and steel frame construction with concrete floor slab and stucco and masonry exterior. Each store will have acoustical tile ceilings and wide expanses of plate glass framed in aluminum, all-glass entrances, and planting areas of subtropical foliage, which will lend a free, out-of-doors effect. Parking will be provided for 1000 cars.

Kegley, Westphall & Arbogast, Los Angeles architects, designed the 1-story building. Structural engineers were John A. Martin & Associates, Los Angeles. Estimated cost is $135,000.

### HACIENDA GOLF CLUB REMODEL

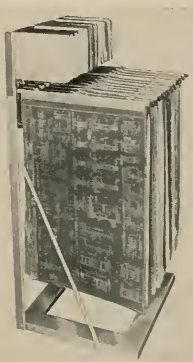
Second phase in the long range remodeling program at the Hacienda Golf Club, La Habra, is underway, James W. Parks, president of Hacienda, Inc., has announced.

Newest improvements costing $200,000 will increase the size of the clubhouse to a total of 25,000 sq. ft. while a new 15,000 sq. ft. golf professional's shop will be connected to the building by a covered breezeway.

Architects Balch, Bryan, Perkins, Hutchason, 2933 Rowena Ave., Los Angeles, designed the contemporary building which will have an exterior of board and batten wood, plaster and Palos Verdes stone facing, with new porches and extensive stone terraces overlooking the golf course.

### PLAN HOLD VERTICAL FILING SYSTEMS

A new Data-File has been added to Plan Hold Corp.'s line of vertical filing equipment which includes: wall racks, rolling stands, carousel units, filing cabinets and the Standard Plan Hold which may be used in "home made" racks.



Holes and other mutilations are eliminated with the all-aluminum Plan Hold friction type holders. Complete information on this new product is available from Plan Hold Corp., 5204 Chakemco St., South Gate. Calif.

### THOMAS CHURCH TO LANDSCAPE PLANT

Thomas Church of Thomas Church and Associates, San Francisco, landscape-architect, has been selected to landscape the 1,100-acre site of Caterpillar Tractor Co.'s projected Industrial Engine Plant, Research Center and General Offices Building 12 miles north of Peoria, Illinois.

Advance study of site development includes plan of traffic lanes, parking areas, building placement, pedestrian walks, rec-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reation areas and overall grading of the land. Approximately 3500 people will be employed in the new area when facilities are completed. The Industrial Engine Plant proper will provide 500,000 sq. ft. of space.

A graduate of the University of California, Church received a Master of Landscape Architecture and City Planning degree from Harvard University, and is one of the few landscape architects to receive the gold medal award of the American Institute of Architects.

### ENGINEERING FIRM IN NEW BUILDING

Michael J. Garris, consulting electrical engineer, has moved into new and larger offices at 2200 Ocean View Avenue, Los Angeles. The firm specializes in lighting and power systems for all types of buildings.

### HORTICULTURE AND VITICULTURE BLDG.

Architect Delph Johnson, 166 Geary St., San Francisco, and Refrigeration Engineer Edward Simons, 3152 20th Ave., San Francisco, have completed drawings for construction of a 3-story, reinforced concrete building on the Davis Campus of the University of California for the Board of Regents of the University of California.

Facilities will include teaching rooms, demonstration laboratories, study rooms, library and a series of cold temperature rooms. Construction will be of steel and reinforced concrete, open steel web joists, concrete roof with membrane, steel sash, glass, filtered air and controlled humidity, 70,000 sq. ft. of area. Estimated cost of the work is $1,820,000.

### ORAN SCHULTZ HEADS NEW SALES FIRM

Oran Schultz, formerly area sales manager of Arcadia Metal Products, has been named vice president, in charge of sales, of the Mayfair Sales Of California, Inc., a newly organized firm which will handle the Mayfair line of horizontal sliding aluminum windows, single hung windows, aluminum awning windows and jalousies in California.

J. T. Husson, formerly with Sun Valley Industries, will be General Manager, and Jim Adams, regional sales manager for Croft Louisiana, Inc., is moving from Austin, Texas, to Phoenix, Arizona, to better serve the west coast sales office.

Offices of the new firm are located at 206 West Palm Avenue, Burbank, California.


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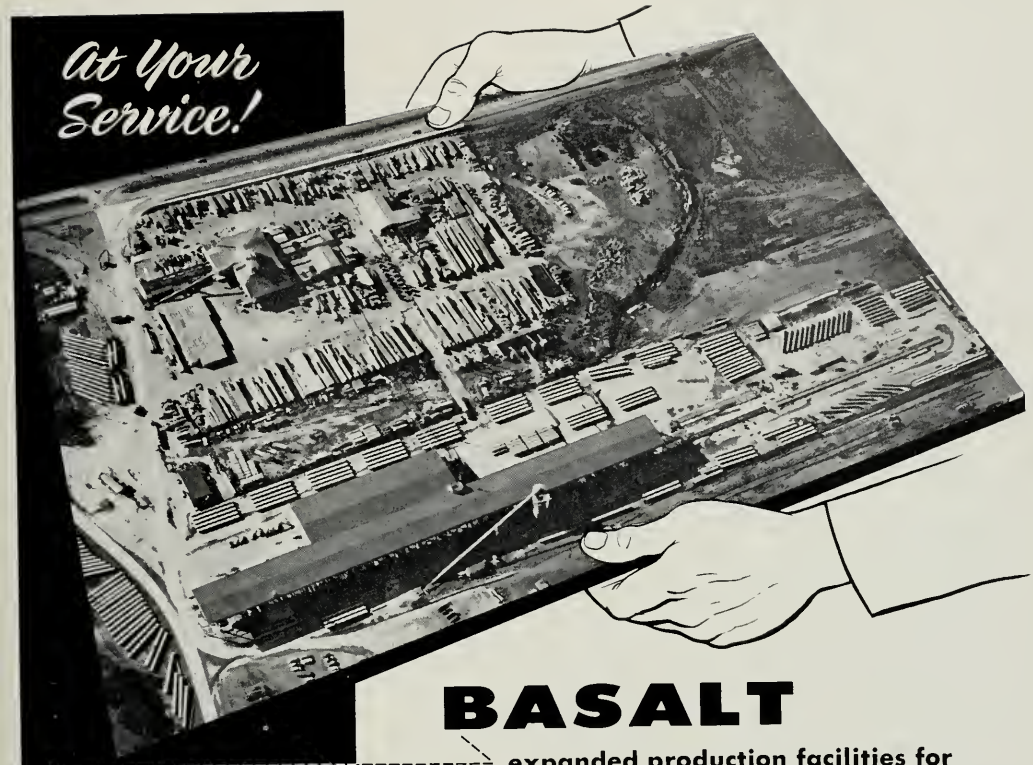

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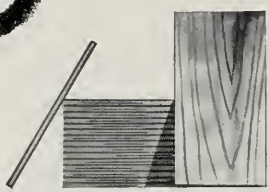

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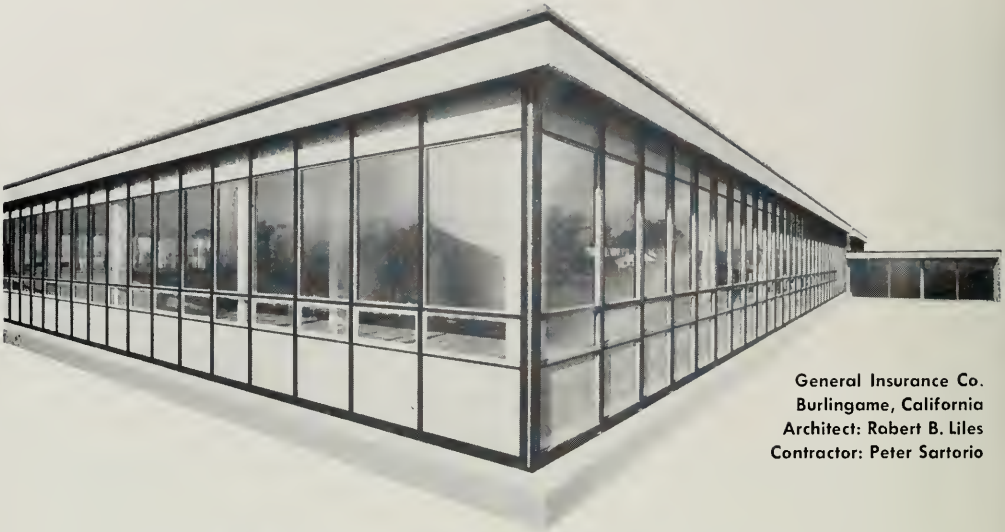

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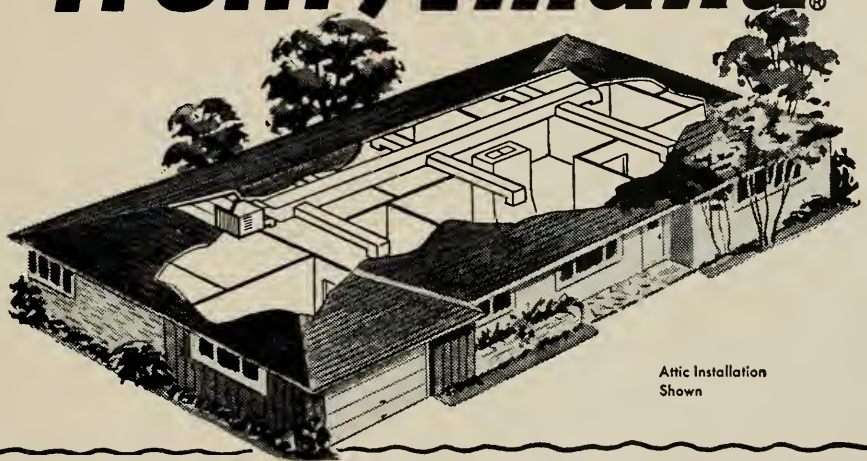

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Vol. 210 No. 2

# ARCHITECT AND ENGINEER

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★

**COVER PICTURE**

FIRST WESTERN BUILDING
Oakland, California
STONE, MULLOY, MARRACCINI AND PATTERSON,
Architects
SWINERTON & WALBERG CO.,
General Contractors
DUDLEY DEANE & ASSOCIATES,
Mechanical Engineers

Architectural drawing of the way the new building will look when completed: See page 12 for detailed story of project.

*Illustration courtesy Porcelain Enamel (Architectural Division) Publicity Division.*

**ARCHITECTS' REPORTS—**

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**Telephone DOuglas 2-8311**

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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

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# . EDITORIAL NOTES .

## TAX REDUCTION IN DEEP FREEZE

Barring a last minute surge of unexpected activity, the first session of the 85th Congress will adjourn with a shameful record of inaction on the recommendations of the second Hoover Commission.

Grassroots pressure for thrift in government was unprecedented during most of this session. Despite this citizen mandate, the Congressional committees that must initiate the action needed to put the Commission's legislative proposals into effect haven't even bothered to hold hearings on 80 per cent of the more than 170 pending bills.

Instead, for a variety of reasons ranging from lack of political courage to belief in paternalistic government, the economy drive has been limited to nibbling at appropriation requests, which ignores the fact that it is impossible to cut the cost of government significantly unless the size and scope of federal activity is reduced.

The Hoover Commission completed its study two years ago and immediately won nationwide bipartisan praise.

But members of Congress have failed miserably to recognize and discharge their moral obligation to evaluate the Commission's proposals and to translate those having merit into dollar savings, and thereby expedite the achievement of long-overdue national debt and tax reductions.

* * *

The nation's sawmills produced 37.5 billion board feet of lumber during 1956, enough to build about 3.8 million three-bedroom homes.—National Lumber Mfgr's Ass'n.

* * *

## THERE IS NO END

Political pressures to increase Social Security benefits are relentless.

Last year Congress extended Social Security coverage to new occupations and lowered from 65 to 62 the age at which women would become eligible for benefits.

Today Congress, and you if you must earn money, face startling new demands.

For example, the AFL-CIO has proposed hospital and medical care for the ten million persons receiving benefits and a benefit hike which would increase maximum benefits from $108.50 to $150 per month.

To finance these changes, the unions advocate an increase in the tax rate and wage base which would hike maximum taxes some $70 a year for every employee, $70 a year for the employer and if you are self employed the increased tax would be $105. But, even that is not enough, as Social Security actuaries estimate these new taxes would fall at least 15 percent short of producing the needed costs.

Social Security officials report that under present conditions the benefits will exceed tax collections this year and again in 1958 and 1959.

Real Social Security is in keeping a sound program on an economic basis; irresponsible demands, if granted, will wreck the entire system.

* * *

Difficulties which interfere with good subcontractor and general contractor relationships cannot be cured by legislation. —John A. Volpe, Chm. Subcontracting Committee, Associated Genera Contractors of America.

* * *

## FIRE PREVENTION

President Eisenhower has proclaimed the week of October 6-12 as Fire Prevention Week and has called upon the nation to assist in a coordinated effort to reduce losses of life and property from fire.

National and community leadership, and the public in general, go all-out once a year to promote fire safety and the records will show that during the past 35 years of effort considerable progress has been made in educating the nation in fire safety.

Architects, Engineers and Builders can contribute a year-'round effort to reducing fire loss, by consideration of fire risk in construction design and subsequent day-in and day-out maintenance. Adequate and proper use of modern materials, equipment and a complete understanding of utility use of commercial, or industrial, buildings, and proper safety in residential design and construction, will help considerably to reduce fire loss.

A Fire Prevention Week is a good thing . . . a basic program of fire prevention and control in all construction is even better.

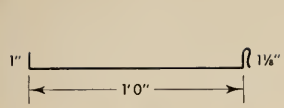
* * *

## HOUSING SITUATION IMPROVES

The Federal administration, in a series of coordinated actions affecting the whole pattern and fabric of home financing, has lowered FHA down payments to the point authorized by the 1957 Housing Act and boosted the FHA interest rate to 5½ per cent. At the same time discount controls have been imposed on FHA and VA loans and the price schedule of the Federal National Mortgage Association sharply revised.

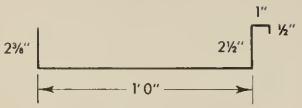
The announcements determined application of provisions of the Housing Act which Congress sent to Eisenhower on July 1, and ended a prolonged period of suspense as far as the home builders of the nation are concerned.

The full effect of the administration's action may not be fully felt during the remainder of 1957, but should be reflected in 1958 housing.

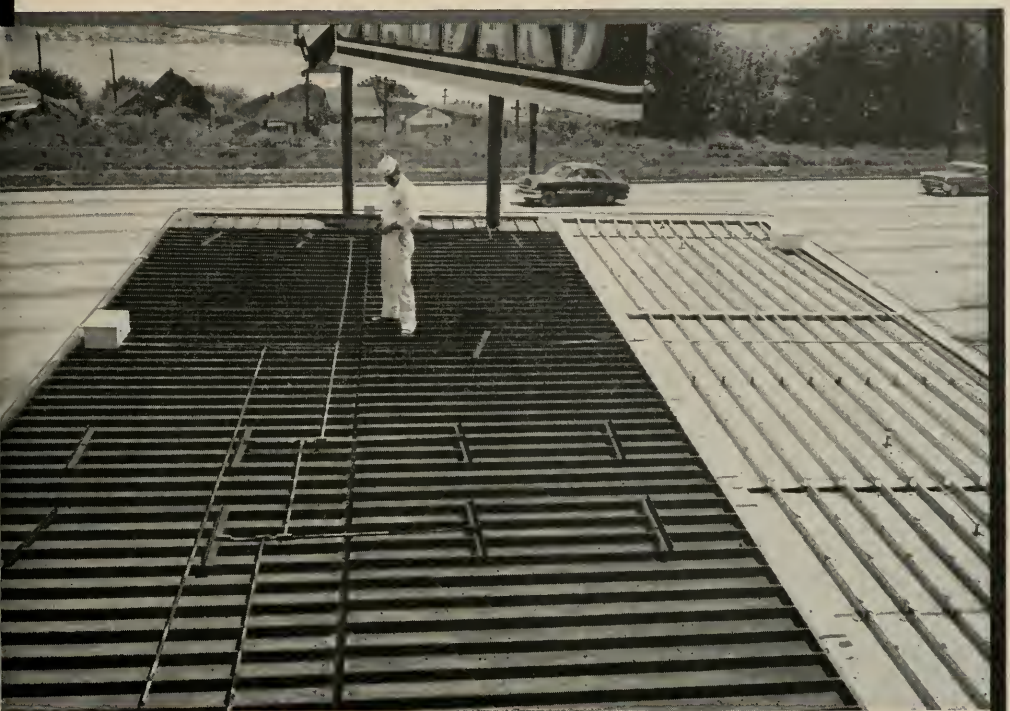



YODER

In addition to press brake fabrication described below, Fentron Industries often use the Yoder (continuous) method in which roof sections are made to any length and standing seams are crimped together for greater strength.




PRESS BRAKE



# Steel roof decking...durable, strong and economical

Fentron Industries of Seattle, Washington, has found USS Steel Sheets ideal for low-cost and reliable roof deck construction. The service station canopy roof above, formed and installed by Fentron, is fabricated from 18-gauge USS Sheets by the press brake method and plug-welded every 18 inches. Sections are one-foot wide in nine-foot spans with two-and-one-half inch standing seams that interlock on installation; leak-proof against wind and water. This roof decking has withstood test loads of 55 lbs. per sq. foot, without distress . . . good overhead insurance under the snow loads in Washington winters.

Steel roof decking is durable, strong and costs less to install. Other materials require more weight, additional construction time and greater cost to equal the strength and carrying capacity of steel.

Whether you build service stations, industrial plants or homes, we'll be happy to direct you to steel decking fabricators who will provide you with additional information and specifications.

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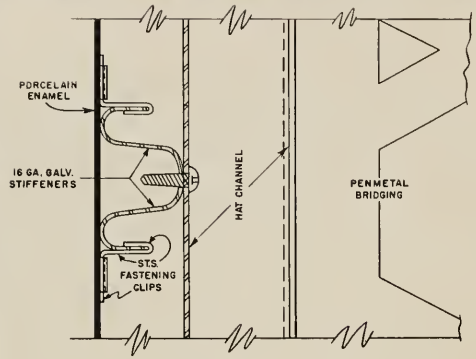
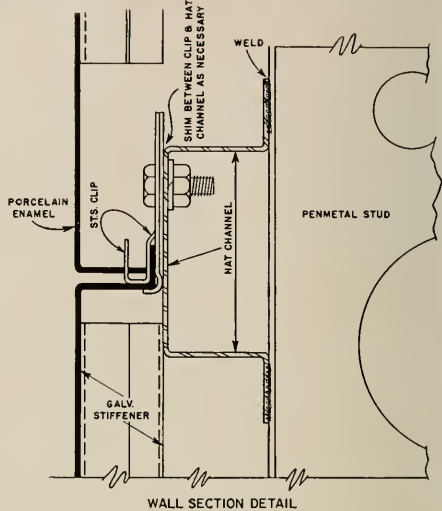
*United States Steel Corporation · Columbia-Geneva Steel Division*
*120 Montgomery Street, San Francisco 6*

UNITED STATES STEEL

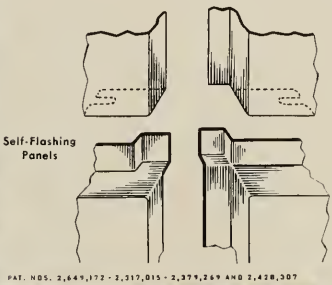
# the beauty of MODERN DESIGN with ARCHITECTURAL




PLAN SECTION OF STIFFENER

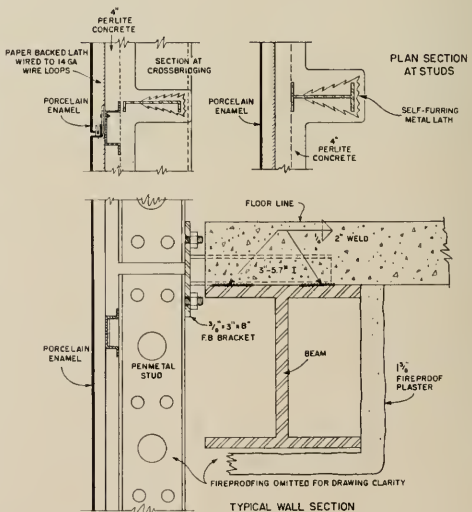



WALL SECTION DETAIL

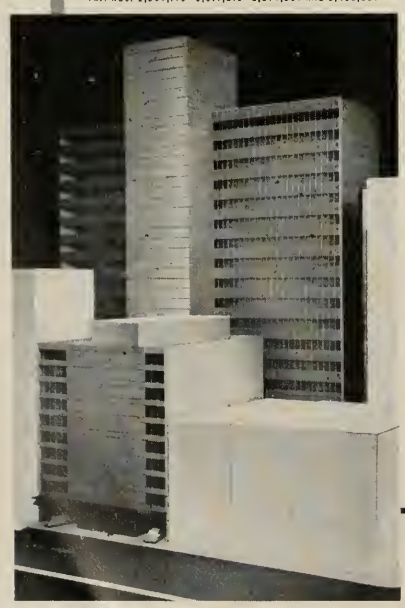



PAT. NOS. 2,649,172 - 2,317,015 - 2,379,269 AND 2,428,307

**Lightweight panel wall construction, with economical building ease and speed, provides substantial construction savings. Service core and end walls have 4-hour fire rating, by use of 4-inch perlite concrete.**



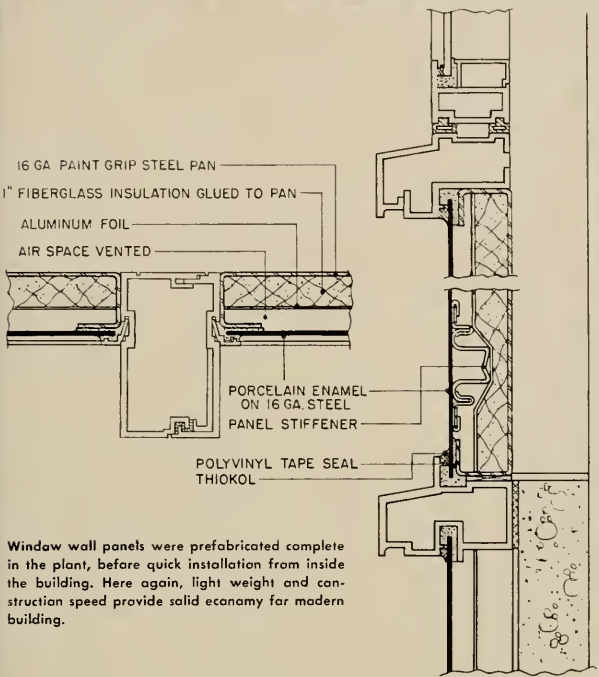

TYPICAL WALL SECTION



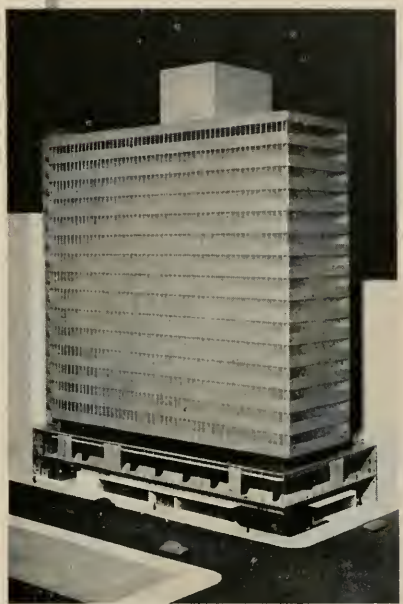
**PANEL WALLS** of Porcelain Enamel veneer, manufactured and erected by:
Architecturol Porcelain Constructors, Oakland

**ARCHITECT:**
Stone, Mulloy, Morraccini & Patterson, A.I.A., San Francisco
**STRUCTURAL ENGINEERS:** Smith & Moorehead, San Francisco
**GENERAL CONTRACTOR:** Swinerton & Walberg Co., San Francisco
**OWNER AND DEVELOPER:** Capitol Company, San Francisco

# PORCELAIN ENAMEL


16 GA PAINT GRIP STEEL PAN
1" FIBERGLASS INSULATION GLUED TO PAN
ALUMINUM FOIL
AIR SPACE VENTED
PORCELAIN ENAMEL ON 16 GA. STEEL
PANEL STIFFENER
POLYVINYL TAPE SEAL THIOKOL

**Window wall panels were prefabricated complete in the plant, before quick installation from inside the building. Here again, light weight and construction speed provide solid economy for modern building.**



WINDOW WALLS manufactured and erected by: Kawneer Company, Berkeley. Porcelain Enameling by: Ferro Enameling Company, Oakland

**The First Western Building, Oakland, California —** tallest office building in the West to extensively use Architectural Porcelain Enamel wall construction — over 100,000 squore feet!

**New high in eye-appeal . . . and economy!** Window walls feature alternating courses of plate glass and blue-green insulated porcelain enamel panels in aluminum framework. Service core and end wall are faced with porcelain enamel panels, also blue-green, with a complementary groy mottle. This panel wall meets four-hour fire rating requirements by the use of four-inch perlite lightweight concrete.

**Increased design flexibility!** High strength and light weight minimize load on structural members. Architectural Porcelain Enamel lends itself ideally to floating construction techniques that permit substructural movement, but control shifting of panels within tolerable limits. These lightweight panels allow the maximum amount of rental space to be adequately enclosed.

**Today's beauty — tomorrow!** Porcelain Enameled walls provide an *inorganic* protective surface requiring a minimum of maintenance, literally "washing clean" with every rainfall, permanently resisting the inroads of weather.

*BEFORE YOU SPECIFY . . . investigate the advantages of permanent color in Architectural Porcelain Enamel. Write for full details, TODAY!*

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# NEWS and COMMENT ON ART

## CALIFORNIA STATE FAIR ARTS AND CRAFTS

More than 1475 entries have been submitted for exhibition in the Art Show to be held in conjunction with the California State Fair in Sacramento, August 28-September 8, according to Earl Lee Kelly, director in charge.

Four hundred and eighty-one oils, watercolors, pastels, tempera, gouache, prints, sculpture, jewelry, metalwork, textiles, ceramics, enameling, and art movies representing 267 exhibitors have been selected for display and will share in a total of $11,385 in art premiums.

Members of the jury who made the selections of paintings and prints are Maria von Ridelstein, San Francisco, director of the Ridelstein Art School; Hans Burkhardt, Los Angeles, first prize winner at the 1955 fair; Ejnar Hanson, Pasadena, one of California's most outstanding artists; Karl Kasten, Lafayette, instructor in the art department at the University of California, and Dr. Gordon W. Gilkey, Corvallis, Ore., head of the art department at Oregon State College.

Merrell Gage, Santa Monica, academy award winner last year for his movie entitled "Face of Lincoln," selected the films, and Henri Marie-Rose, San Francisco, instructor at the California School of Fine Arts, the sculpture.

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Andre Laherrere, is presenting the following special exhibitions for August.

PAINTINGS by Nemi Frost, Charlotte Gmelin-Wilke and four large murals by Frederick Black.

The Little Gallery will show Modern Aubussion by Nausicca Bellois. Line and Wash drawings by Edwin Herron.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., has arranged the following special exhibitions and events for public showing during August.

EXHIBITS: 19th Century French Paintings from the Museum Collection, an exhibition augmented by notable examples from private collections; Paintings and Drawings by Richard Davis; Watercolors by Viking Leon; and Paintings by Grandma Moses.

The Achenbach Foundation for Graphic Arts is featuring Wenzel Hollar (1607-1677), an exhibition commemorating the 350 anniversary of the birth of the most obiquitous printmaker in 17th century Europe; Our Daily Bread, the story of agriculture in master prints from Ducrer to Grant Wood.

SPECIAL EVENTS: Organ Recital each Saturday and Sunday afternoon at 3 o'clock. Summer Art Classes for adults and children will close August 17th and will be resumed in September.

The Museum is open daily.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is presenting the following special exhibitions and events for August:

EXHIBITIONS: Painting in America—The Story of 450 Years. One of the most important surveys of American painting ever assembled; contains over 100 outstanding paintings from 60 museums, institutions and private collections. Early American Prints is devoted to graphic arts in America from the earliest period to the present, includes 116 prints. 150-Years of Dolls, exhibit lent by museums and private collections. Japan Week, featuring Japanese art, Bonsai and flower arrangements (August 19-25); Contemporary German Prints and California College of Arts and Crafts, representing the 50th Anniversary Exhibition.

EVENTS: Classes in Art Enjoyment for adults, the Painting Workshop for Amateurs, Exercises in Oil Painting, Seminars in the History of Art, and the Children's art classes will recess in August to be resumed in September.

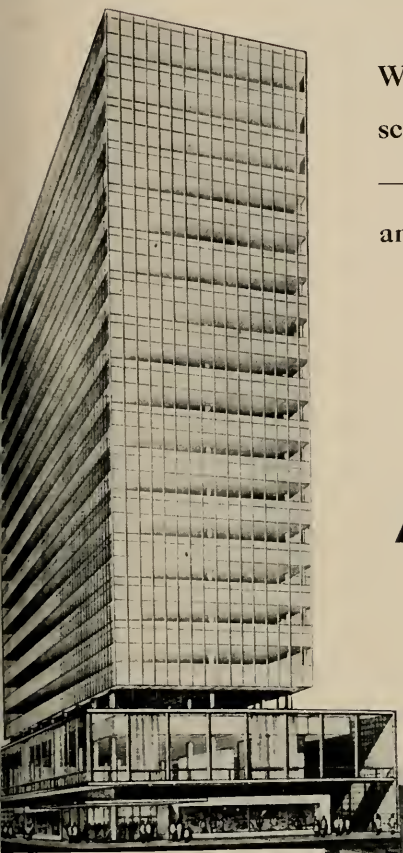
The Museum is open daily.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, will feature the following special exhibits and events during August:

EXHIBITS: Dutch Art, 1945-1955, a special showing being circulated by the Smithsonian Institute; Stuart Davis, 55-paintings and sketches of work done between 1946 and 1956, organized collaboratively by the Walker Art Center of Minneapolis, the Des Moines Art Center, The Whitney Museum of American Art in New York, and the San Francisco Museum of Art. Hans Hofmann, a retrospect exhibition; Young American Painters, organized by the Museum of Modern Art, New York; Museum Collections; Scultpure by Jacqques Lipchitz, and American Jewelry and Related Objects, an exhibit circulated by the Smithsonian Institution.

# Much that doesn't meet the eye . . .



Within this ultra-modern 18 story Oakland skyscraper—the FIRST WESTERN BUILDING—will go the internals that will provide its tenants with maximum comfort and convenience—

## HEATING
## VENTILATING
## AIR CONDITIONING

a major mechanical installation by a major organization

**OWNERS AND DEVELOPERS**
CAPITAL COMPANY

**ARCHITECTS**
STONE, MALLOY, MARRACCINI & PETERSON

**MECHANICAL ENGINEERS**
DUDLEY DEAN & ASSOCIATES

**GENERAL CONTRACTOR**
SWINERTON & WALBERG

*Right: Our new Oakland home*
**1919 MARKET STREET**

**Scott Co.**

MECHANICAL CONTRACTORS TO THE WEST
SAN FRANCISCO • OAKLAND • LOS ANGELES

THE
NEW
LOOK

# FIRST WESTERN BUILDING

## OAKLAND, CALIFORNIA

ARCHITECT:
Stone, Mulloy, Marraccini
& Patterson

GENERAL CONTRACTOR:
Swinerton & Walberg Company

MECHANICAL ENGINEER:
Dudley Deane & Associates

# A PROGRESS REPORT

By GERALD RAY

Dedicated to the most discriminating tastes in architectural beauty and functional design, construction of its $10,000,000 First Western Building in Oakland, California, is progressing "on schedule" according to Edward F. Ryan, president of Capital Company.

Swinerton & Walberg Co., the general contractors, expect to have the modern 18-story skyscraper and adjacent parking facility ready for full occupancy by October, 1958. Already, work is well advanced toward completion by October of this year of the distinctive exterior with the application of the "skyzure Blue" window-wall panels and aluminum frames.

These panels, are made of three kinds of porcelain fused under high temperatures to a special steel base and are alternated with panoramic Solex plate glass windows to absorb much of the infra-red rays and so reduce glare that might otherwise be transmitted to the interior of the offices.

This ultra-modern building covers an area fronting 227 feet on Fourteenth Street and 100 feet on Broadway, in the hub of downtown Oakland. It will be

**TOWERING STEEL SKELETON**

**Being sheathed in distinctive "skyzure blue" porcelain enameled window wall panels.**

**Photograph was taken late in July, 1957.**

fully air-conditioned. Special tenant facilities will include a modern restaurant, the use of conference rooms and a multi-story garage for trouble-free parking and quick and easy access and departure.

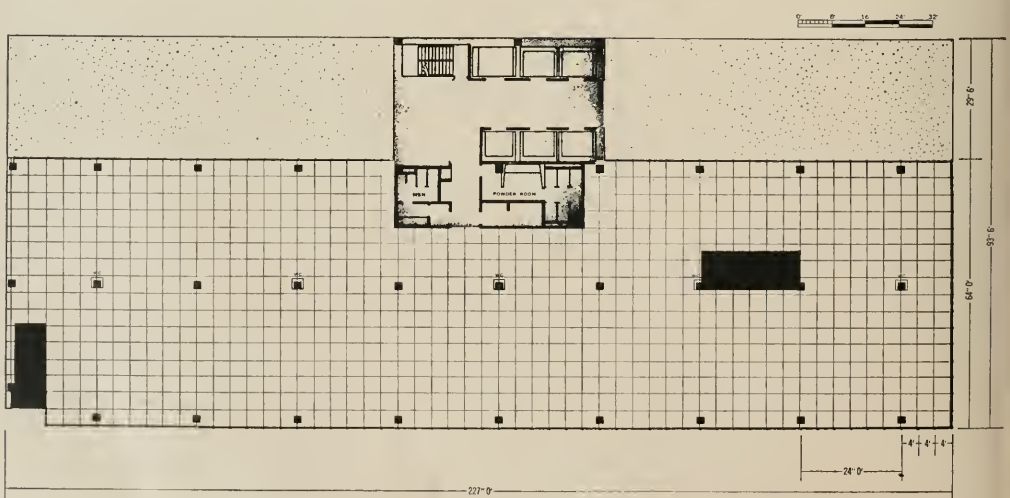
The building is of structural steel frame, weighing more than 4500 tons. It rests on 40 large, reinforced concrete spot footings, 14 feet square and 6 feet deep, interconnected with heavy reinforced concrete beams, requiring 6,000 cubic yards of concrete in all. The steel work, with beams joined by nuts, bolts and welding, rather than rivets, was completed with appropriate ceremonies on May 16 last. Because of excellent soil conditions, pile-driving was not necessary, thus noise was kept to a minimum—a most welcome relief to tenants in adjacent buildings.

The entire structure is being totally fireproofed for Type 1 construction. It is of highly functional 'modular design,' according to Douglas D. Stone, of Stone, Mulloy, Marraccini & Patterson, the architects.

All of its functions are based upon a 4-foot square module which includes: (a) structural framing and exterior curtain wall, (b) interior architectural treatment of ceiling panels, movable partitions, floor tile etc., (c) electrical under-floor distribution system and

**EXTERIOR PANEL INSPECTION**

**Two workmen hold one of exterior panels for official inspection (l.r.) F. B. Winkworth and J. G. McClure, Kawneer Co.; D. B. Gladstone, v-p Swinerton & Walberg Co.; Nils Aaronsen, project engineer, Capital Co.; Rudolph Blaettler (kneeling) Bldg. mgr.; Edward F. Ryan, Capital Co., pres.; and Sam Flint, v-p, Capital Co., in charge of project.**



ceiling lighting fixtures, (d) heating and air-conditioning systems in the ceiling. This 4-foot module permits partitions to be installed, removed and reinstalled at any 4-foot point in both directions without affecting lighting, heating or air-conditioning.

As soon as the exterior work is finished this Fall, the structure will look much as it always will, but inside, it is a different story.

Today, of course, work is progressing at various stages on all 18 floors, and to the layman may appear to be a bewildering array of elevators, pipes, wires, concrete, tiles and dozens of other materials. Actually, however, work is progressing in orderly fashion with each step carefully calculated ahead and going up

**"SKYZURE BLUE"**

**Window-wall panel being inspected in place by D. B. Gladstone (l.r.), Edward F. Ryan and J. G. McClure.**

**Artist's rendering of lobby, showing escalator to banking services.**

according to plan. For example, work was considerably speeded on the flooring for the skyscraper by use of the cellular steel construction method that permits quick topping with a concrete floor fill. Over this eventually will go resilient tile for finish floor material, while restrooms will be finished with ceramic tile floor and walls.

On the ceilings will be an acoustical panel grid continuous to all exterior walls. The 12x24-inch metal perforated units also include an acoustical-thermal blanket placed above the heating-cooling coils. They can be interchanged with a lighting fixture unit of the same size and can be easily removed for cleaning of panels or access into equipment above.

The radiant ceiling panel heating and cooling with conditioned air, will be provided throughout the building. This method will provide optimum comfort conditions and maximum flexibility. Ventilation air can be provided in any space through the perforated acoustical ceiling panels as required. The radiant panel ceilings adjacent to the exterior wall will be controlled by thermostats. Provision also will be made to accommodate individual room controls should tenants require this feature.

Lighting for all tenant spaces will consist of 12″x24″ recessed fluorescent units spaced at 4′ 0″ centers in each direction. These units will replace a standard acoustical metal pan ceiling panel. Local switching of lighting in each tenant's area can be installed in movable partitions to suit his requirements without disturbing the standard lighting pattern. This scheme will provide maintained lighting intensities of 31 to 45 foot candles, depending upon the size of the rooms. Should a tenant desire higher intensities, a third tube may be added to the standard two-tube fixture.

The underfoot distribution system will consist of groups of three continuous raceways running the length of the building. Each raceway will be spaced on 4′ 0″ centers. These raceways will be connected by means of headers running across the building. Of

**SKETCH of typical office with fluorescent lighting, completely self contained ceiling, flexible partitions providing ceiling high walls, decorative floor covering over cellular floor with four foot module system for location of partitions, electric power, communications systems.**

FLUORESCENT LIGHTING
Fixtures are recessed into the ceiling at intervals of four feet in each direction. Each fixture is two feet long by one foot wide, with fluorescent tubes supplying ideal lighting facilities.
CEILING
FLEXIBLE PARTITIONS
Partitions provide ceiling high walls... may be readily moved for future changes in room equipment arrangements, and at minimum cost.
PANORAMIC VIEW
FLOOR
Decorative floor coverings over cellular floor providing maximum flexibility for location of partitions, electric power and communication systems. Within each four foot module are three cells which are wired for the above services.
DECOR

the three, one raceway of each group will accommodate power wiring for tenants' receptacles, business machines, etc. The second raceway is for telephone service. The third raceway in each group will provide space for office intercommunication systems, if needed.

As with all the other features of this ultra-modern building, work also is progressing on the elevator system. Provisions have been made for a bank of six high speed automatic elevators. Uninterrupted service will be available throughout the building 24 hours a day, seven days a week. Electronic door protective devices are provided for complete safety and foolproof operation. One elevator is designed as a passenger and service elevator with a 9-foot ceiling height for equipment, movable partitions, etc.

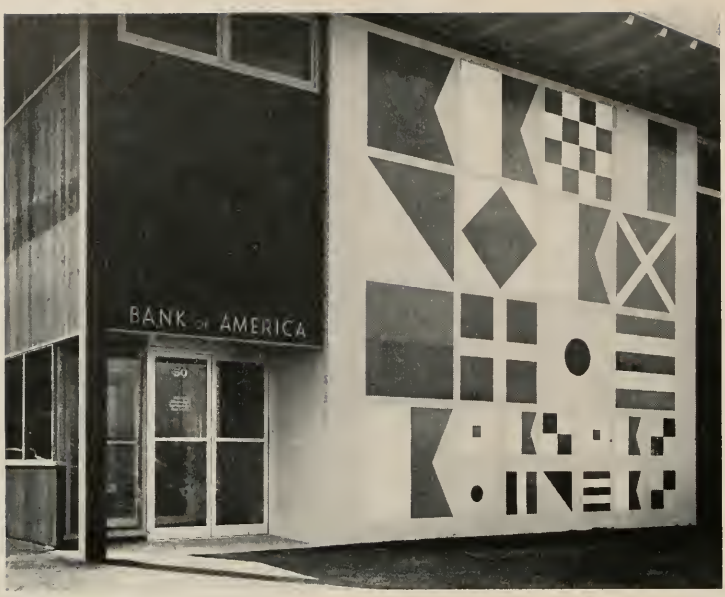
A major part of the ground floor, the basement and the fourth floor will be occupied by Smith's men's and boys' store. The First Western Bank and Trust Company's Oakland central office will occupy the entire second floor with escalator service from the lobbies, and a portion of the first and third floors. There are three entrances to the building, from the 14th Street lobby, the Broadway lobby and via the multi-story tenant garage immediately adjacent.

The 9-story garage building is 87½'x100' and will reach a height of 112 feet, providing parking facilities for approximately 265 automobiles. Attendants will be on hand to park the cars on various levels, through use of two elevators, and a turntable. A man-lift will expedite rapid delivery of cars to the ground floor.

The leasing program is keeping pace with the con-

(See page 29)

**ARTIST'S rendering of main floor, multi-story tenant garage, showing entrance to lobbies of adjoining building now under construction.**




**INTERNATIONAL SIGNAL CODE FLAGS in tile Spell "Bank of America"— Sausalito, California.**

COLORFUL TILE

# WALL MURALS - DECORATED PANELS

## ADD BEAUTY TO BUILDINGS

Architects and engineers are incorporating added beauty and identification into the exterior and interior areas of many buildings through the use of specially created decorated Hermosa Tile manufactured on the West Coast by Gladding, McBean & Co. of Los Angeles.

An outstanding example of a tile installation creating distinctive identification with colorful tile decoration is the Bank of America Branch in Sausalito, California, which was designed by architects, Wurster, Bernardi & Emmons, AIA of San Francisco. A unique arrangement of tile across the front of the two-story

**Entrance County Court Building, Burbank, California; symbolic tile panel adds to beauty.**

building forms four rows of international signal code flags spelling: "Bank of America Sausalito Cal." This unusual method of exterior identification has proven to be an effective "attention-getter" in this waterfront community located on the San Francisco Bay.

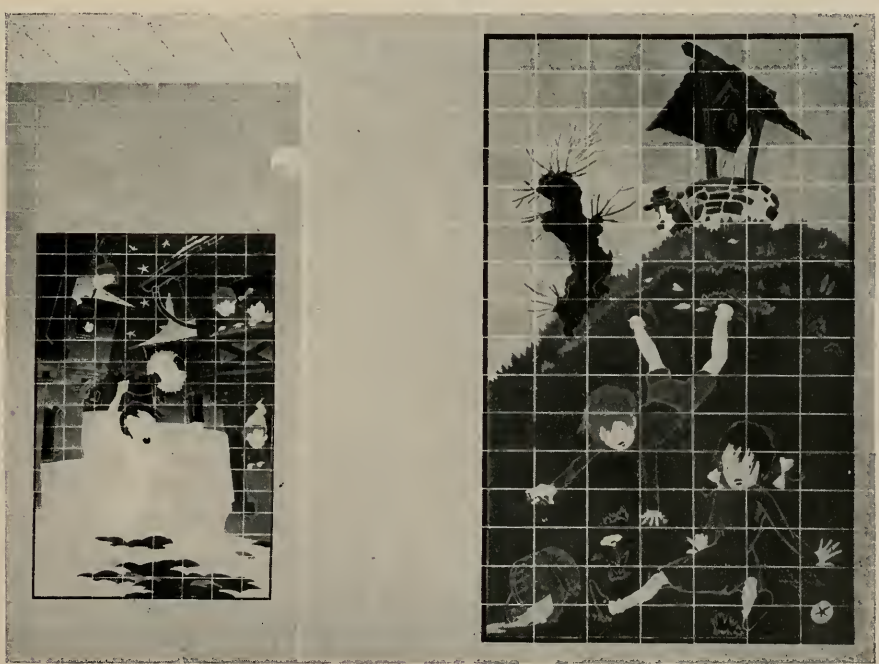
The brilliant tiles, with their vivid yellow, blue, red and white colors are visible for miles out in the bay and readily identify the bank from land as well.

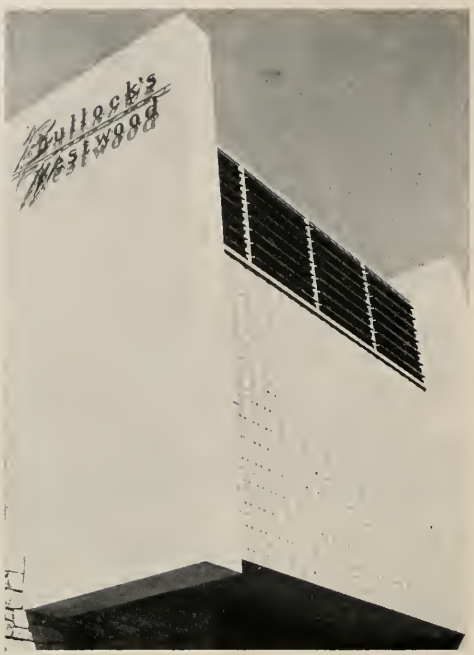
Interior walls of buildings may also be brightened through the use of symbolically decorated tile as in the Los Angeles County Communicable Diseases Hospital where the wall of a waiting room displays the medical Caduceus. The emblems are formed through the use of brushing beige, peach and green onto 11¾x11¾ inch tiles. Adrian Wilson, A. I. A. and Paul R. Williams, F. A. I. A. of Los Angeles were the architects.

In Burbank, California, the County Court building used decorated Glazed Ceramic Tile to symbolize the building with the "Scales of Justice" insignia made on 6"x6" tile to form a 9x24 ft. identifying panel placed over the exterior wall of the main entrance. Prescott and Wolfe, A. I. A. of Los Angeles were the architects.

**"Winken, Blinken and Nod" (above) Children's library, South San Francisco.**

**"Jack and Jill" in the Shriner's Children's Hospital, Los Angeles.**






**Enormous panel walls of decorative tile distinguish fashionable store—Bullock's Westwood.**

In the fashionable business district of Westwood, California, Bullock's Inc., displays exterior walls of 12x12 inch Glazed Ceramic Tile, which adds beauty to the shopping area. The interesting store front treatment was specified by architects Welton Becket, F. A. I. A. and Associates of Los Angeles.

The Crown Drug Co. building in San Francisco used 12x12 inch tile symbolically decorated with crowns. The tile covered the entire front of the building exterior.

In addition to the exteriors and interiors of business buildings, many churches, hospitals and schools have used special Decorative Tile.

Geometric patterns adorning Hermosa Tile are often required as a background for the proper accent of religious statues. An approximate seven foot high terra cotta statue of the Madonna has been erected on a wall pedestal, effectively displayed against a beautiful background of geometrically designed tiles at the San Fernando Junior Seminary in San Fernando, California. The architects were Ross Montgomery, A. I. A. and William Mullay.

A number of techniques are employed by tile craftsmen at Gladding, McBean & Co. to capture the desired effects of wall murals. Many of these beautiful murals are hand bulbed, employing a wide range of colors and designs. "Bulbing" is a special technique which flows the glaze on the surface, rather than brushing it. For realistic warmth and beauty, Gladding, McBean

(See page 35)

**Custom Decorated Tile**

**used for the Crown Drug Co. San Francisco**

# CALIFORNIA'S STATE FAIR AND EXPOSITION

## GETS READY TO MOVE INTO COMPLETELY NEW, MODERN, GREATLY EXPANDED PLANT

### $20,000,000 APPROPRIATED FOR CONSTRUCTION DURING THE NEXT TWO YEARS OF NEW FACILITIES ON 1,050 ACRE FAIR SITE

Sacramento, California

Gates of the 1957 California State Fair and Exposition will swing wide open August 29-September 8, to embrace the throngs of thousands who will see this year's 12-day show, packed with fun, excitement and exhibits of educational value.

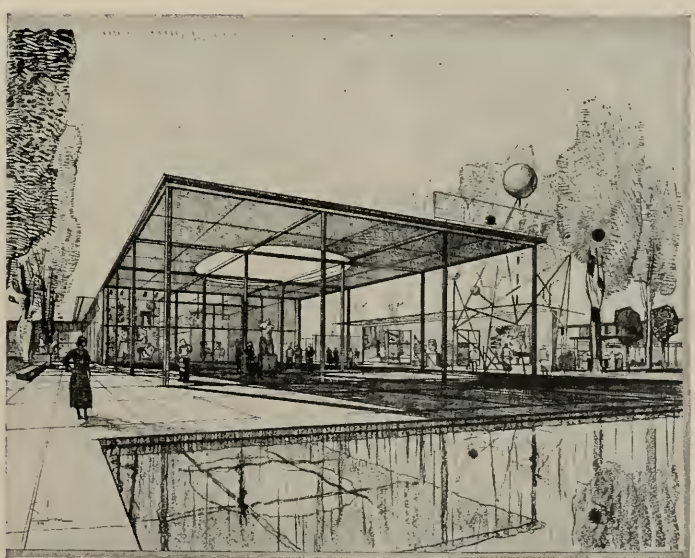
Although most of the fair's present buildings will appear the same, modern architecture and vivid color schemes have been obtained in the new Woman's Building, formerly the Home Show Building, to create an entirely different look.

With recent allocation of some $20,000,000 additional for development of the new California State Fair and Exposition 1,050 acre site north of the American River in Sacramento, plans are progressing rapidly for early construction of many new buildings, which when completed will represent the most modern trend in architectural design of any state fair plant in the nation.

Displayed on this and other pages, are a number of architectural renderings of proposed new buildings providing a completely new look in exhibition facilities and public convenience. The rhythmic forms of the structural elements, handled with directness and simplicity and enlivened with much color, will furnish a sympathetic background for the story of the exhibits. Architectural and utility planning of a great new fair and exhibit facility from bare, undeveloped site, to a perfection of beauty and convenience permits use of many new building materials and ideas, such as modular arrangement of structures and ab-

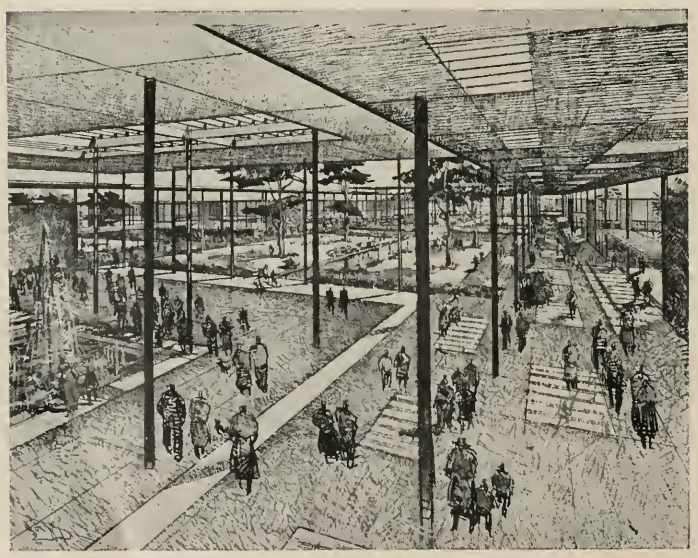
**PROPOSED ART BUILDING**

**Large pool will decorate the Court of Arts which is formed by two Arts Buildings and the Hall of Flowers . . . at the new State Fair Site to be ready by 1960.**



**READY FOR 1960 FAIR**

**WITH ALL IN READINESS** for this year's Fair and Exposition, plans for the new site north of the American River in Sacramento, include this Outdoor Theater whose huge bowl seats 10,000 persons. Suspended from the "Rainbow Arch", floodlighted at night, is a canopy which provides for direction of sound and lighting.



**COURT OF FLOWERS**

**Will join the new Counties Building by pergolas and shaded walks, with exhibits extending into the gardens which flow into the buildings without definite outlines.**

**Modular removable panels will permit great flexibility in design and location of walls.**

sence of divisions.

When completed and ready for use within the next few years California's State Fair and Exposition grounds will represent the most modern architectually developed exhibit facilities in the nation, and will be a "show" place of today's design comparable to the great display of the state's natural resources, commercial and industrial enterprise, already recognized as outstanding among the larger exhibitions of the world.

Scenes behind the scenes of the California State Fair and Exposition August 28-September 8, indicate the West's annual show of shows once again will be jam packed with fun and exhibits of educational value.

Heading the list of daily attractions will be horse races, livestock and poultry, art exhibits, the Merchandise Mart, fashion shows, wine tasting exhibits, the Consumer Reaction and Survey Councils, 4-H Clubs, Future Farmers of America and International Cookery and Table Settings.

Featured on the list of nightly events are star filled shows with casts of hundreds of singers and dancers who will perform before the big racetrack grandstand as well as the horse show and sparkling midway.

In addition various bands and performers will appear on the huge bandstand as well as in the Outdoor Theatre.

Art lovers, fashion hounds and homemakers seeking contemporary, as well as traditional, creations in the field of art, the latest in women's apparel or new ideas for the home should plan to make the California State Fair and Exposition headquarters.

A large display of paintings from all periods of art again will be on display in the Art Building along with sculptured objects, photography, jewelry crafts, earthernware and pottery. Enthusiasts of contemporary styles will particularly enjoy this extensive art show drawing a galaxy of prizes.

Contemporary architecture, modern display techniques and a new location have afforded home arts more space and a completely new look in the new Woman's Building, the former Home Show Building. Telephone operations will be conducted in what was previously the Woman's Building.

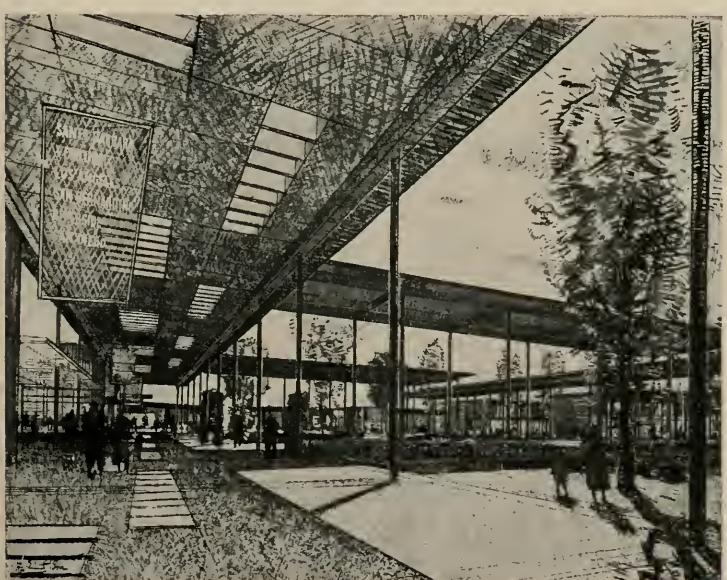
Lovely models will parade the newest in women's fashions on a stage constructed in the center of the Woman's Building. Organ music for the daily event will be provided by famed theater organist George Wright.

Probably highest on the list of favorite attractions is the beautiful and exotic Hall of Flowers whose fragrant shroud hints of the rare treasures a million blooms offer within.

Once inside, fairgoers will be greeted by a vista of plush greenery, waterfalls, redwood trees and ponds bursting with orchids, gardenias, fuchsias, anthuriums and numerous other specimens from the world of flowers and plants.

Adjacent to the Hall of Flowers will be interesting

(See page 36)



**NEW LOOK for COUNTIES BUILDING**

**To be interlaced with Court of Flowers in one large outdoors area by covered walks and courtyards.**

# THE HUMAN SIDE OF SPECIFICATIONS WRITING

By KENNETH M. WILSON, Chief Electrical & Mechanical Engineering Division, E. F. Klingler & Associates, Inc., Architects & Engineers, Eau Claire, Wisconsin

PART II

Consulting engineers too, must learn many new things. One of them is that important as is physical comfort and convenience in the modern building—beauty, line, balance, color, arrangement and human motion are equally important. I have been in many new buildings where the architect's attempt to achieve this end was rendered useless by the engineers placement of an ugly pipe line, a boxy duct, an ill-considered lighting fixture or an ill-chosen heating unit. A little thought and ingenuity on the part of the engineer could have made these objects complement rather than mar the inherent beauty of a given room. Consulting engineers must learn that our fast moving times are a challenge to their special skills. Our times offer an opportunity to truly grow in professional stature if engineers will cease to use the obstacles they face as excuses for compromise. Just as long as a consulting engineer will permit himself to be relegated to the position of a blue print maker, just so long as he will permit an ill-qualified architect to make the decisions he alone should make, just so long as he fails to follow his own work with faithful field supervision, then just that long will he work for a pittance instead of a fee, because so long as he does, that's all he is worth.

Another point that is badly in need of attention is the relation between actively practicing architects, engineers, technical designers and the instructors and professors in our engineering and architectural colleges. We criticize these men in engineering education on several counts. First of all they are indoctrinated with the idea of so arranging their courses of instruction as to prepare their graduates only for work with industrial and manufacturing concerns. Very, very few of our engineering colleges make any effort to teach the fundamentals of business management, public relations, public speaking, professional ethics, engineering law and applied psychology, as a required or even available part of engineering training. Yet if you check with any professional engineer, it will be found that more than 80% of his time is devoted to work in the fields which are largely ignored by our institution of engineering education. Almost none of our colleges of engineering even bother to acqaint their students with the kind of work done by a professional consultant in private practice. Yet in nearly every professional examination board in the nation, you will find the personnel of engineering education represented far beyond their proper proportion in determining who is and who is not competent to practice as a professional consultant. Even worse, many of them, who are technically licensed consultants, offer their services to government and industry at cut rates, utilizing student help and college facilities to enable them to cut their fees. It is not surprising that the private consultant who must bear the cost of operating an office and paying employees is most unhappy about this cut rate, extracurricular activity.

Still another sore spot is that of free engineering and specification service offered by industry to prospective customers. It is asking too much of an engineer or architect to expect him to specify the products of a manufacturer who offers free design to anyone who will buy their products. If manufacturers will have their products well received by the design professions then they must stick to manufacturing and selling, and leave the design field free for the professional designer.

## PUBLIC RELATIONS

The problem of deteriorating relations between the general public and the design professions is one that is deeply rooted in the inadequacy of our specifications, in professional administration of these specifications, in poor support of these professions by our colleges of engineering and architecture, and in competition beteen industry and the public consultants. All of the design professions have paid far too little attention to the way their efforts are presented to society and have made little or no effort to acquaint the general public with the architects' and engineers' place in the scheme of daily living. It therefore follows that so long as the cost of building continues at an unjustified rate of increase and public work costs exceed both estimates and the public's ability to pay, so long as pro-

*EDITOR'S NOTE: This is the second and final part of an article dealing with the writing of specifications, presented by the author at the Annual Spring Conference of The Producers' Council, Inc., and the Construction Specifications Institute, held in Washington, D.C., in conjunction with the 100th Anniversary meeting of The American Institute of Architects. Part I appeared in the July, 1957, issue of ARCHITECT & ENGINEER magazine.*

fessional infighting continues, we cannot expect the public to swallow it with a smile.

These problems are the human problems that must be faced every time we write a specification and every time we release a set of plans. These problems are the human problems with which our young engineers are so poorly equipped to deal. These are the human problems that must be solved if the design profession will keep pace with our fast moving times. This is the unpleasant reflection that faces us in the mirror of our own specifications.

No one can prescribe the magic pill or the universal panacea that will cure all of these ills, nor can anyone hope to solve these problems by passing a law. The only solution to these problems lies in the application of plain garden variety common sense and plenty of dedicated work. I believe that the way to start is to recognize these basic truths about the human side of our specifications and our professions.

## HUMAN RELATIONS

Clients come to architects and they come to engineers for the same reason that you or I go to our attorney or our physician, namely, to have done for them the things that they are incapable of doing for themselves. Clients want and need our wise counsel; they want our opinions; they want our frank expressions of preference if we have any. Our clients are not particularly interested in the basis of our opinions or our preferences so long as they are honest. We are highly skilled men; we try to assure our clients that we are proficient in our own field. Our client wants to accept that fact without qualifications. He is not particularly interested in whether we are theoretically unfair to one supplier or to another. He is interested in our protecting his interests and he is interested in our protecting his dollars, and he pays us a fee to do just exactly that. If we fail to make the decisions that he pays us to make, and if we fail to make them with firmness and authority, then on what do we justify our fee? If we put out a drawing or a specification that is not clear, that is full of indecision, that is full of what the trade calls murder clauses, if it is pointed at defending the consultant or the specification writer against charges or partiality or unfairness, then how can a client help wondering if the consultant is confident of his own ability? Our clients cannot fail to wonder if the consultant he has selected is really sure of his own honesty and his own integrity, for if he were, there would be no need for all of these paper safeguards. We must approach our work with supreme confidence in our own ability, with complete faith in our own integrity. We must reflect these characteristics in firmness and decisiveness in our specifications and in our actions. We will then make our just contribution to the goal of giving our clients a dollar's worth of value for a dollar spent.

Contractors in all fields are builders, they are not merchants. Most contractors care very little about what brand of equipment they put into a given building. They do care, and they have a right to expect clean, clear, concise definition, preferably in just as few words as possible, as to what equipment is wanted, how it must be installed, where it is to be placed. They want, and they have a right to expect, that every contractor bidding on the work will furnish exactly the same equipment that they must furnish and do exactly the same quality of work that will be demanded of them. Contractors want and have a right to expect a clear enough plan and a plain enough specification to enable them to bid their work without loading their proposals with innumerable contingencies to cover situations where they must guess at the intent of the designer.

Manufacturers and suppliers want first, last and all the time to sell their product. Honest manufacturers and honest salesmen would prefer to sell their products on the merit and the utility of their product backed by the integrity of their firm. They would much prefer to sell their products at a professional level where they can be assured that their success or failure to sell will not depend solely upon having a lower price than the other fellow. Nine out of ten prefer to figure their price on a given project, include a fair profit, and either win or lose on one quotation. Nine out of ten abhor the idea of quoting every job with a 5 or a 10 or a 15 per cent cushion that will permit them to outdeal their competition after the contract has been signed. If we ask manufacturers to stay clear of the design profession and to refrain from competition with these professions by offering free engineering, then we must reciprocate by doing a thorough job on our drawings and specifications, and by making sure that we do not misapply any product so that industry need not maintain a technical service to fill in the details and compensate for the errors of the design professions. This will permit industry to employ salesmen instead of application engineers. More important, industry representatives would not be subject to competition of inferior products which the lay customer is not qualified to evaluate.

## MISFITS

We do not deny for one minute that there is a small and a very, very noisy minority of contractors, manufacturers, salesmen, clients, and occasionally a few politicians, who will cry "foul ball" or "partiality" at the very slightest excuse. I am afraid these fellows are going to be with us forever, as they always have been, working on the premise that the wheel that squeaks the loudest is bound to get the most grease. Yet somehow I cannot justify penalizing the honest and the ethical segment of the construction industry

simply to still the hue and the cry that is set up by this noisy minority.

## EDUCATION NECESSARY

Professional, marketing, trade organizations must join hands to force recognition of the design fields as genuinely professional practices and to that end encourage institutions of engineering education to offer a more realistic and usable curriculum to the student who hopes to practice his profession as a public consultant. Compensation for instructors in these institutions of engineering education must be increased to a point where active competition with practicing consultants is no longer financially attractive. More practicing consultants must contribute of their time and their knowledge by serving on examination boards and by more active participation in professional organizations.

We must make the whole public conscious of the part that is played in our entire social and economic structure by the architectural and the engineering professions. Not one layman in fifty has more than the vaguest notion of what part an architect or an engineer plays in the construction of a building other than to draw blueprints. There is a big story to be told about the studies, the thought, the planning that must be undertaken to properly plan and build even a simple building. Somehow, this message must be brought home to the rank and file of our people. Just so long as these professions will permit the general public to remain in this state of ignorance, then so long must we work in obscurity and see our efforts accepted as a legal necessity rather than as a service to human need.

## CONCLUSION

Finally, I believe we must recognize that we have an ethical obligation of service to our clients and to the general public, to contractors, to manufacturers and to suppliers, and this obligation is considerably more than a set of noble platitudes which are printed, attractively framed and displayed on the wall. If we are to merit the respect of our clients and the respect of our neighbors, we must take some risks, we must bear some criticism. If we have a conviction that a given course of action will be best for our clients, we must adhere rigidly and firmly to that course. If we, in the design of a building, find the product of a given manufacturer fits particularly well into the over-all scheme of things, then let's use it, let's name it by its right name, let's demand that we get it, not someone else's idea of an equal. We must give to our clients the whole of our ability and the whole of our judgment and the whole of our convictions. We must practice secure in the knowledge that we are highly skilled men, that we are honest men, and that we make our own decisions. For once and for all we must wipe away the stigma of being puppets, dangling on a string, that can be pulled and manipulated by any disappointed supplier, contractor, manufacturer, who can scream "foul ball" or "partiality".

I firmly believe that the first small step we can take to accomplish all of these very worth while objectives is to clean up our specifications and rid them of their indecision, subterfuge and hypocricy. When we turn these documents into a simple, readable, understandable supplement to clean sharp drawings, when we enforce them fairly and firmly, we will at least have made a good start in the right direction.

Gentlemen, it's one thing to stand before this group prescribing for the ills of our professions and to criticise the specifications through which they are seen. It is quite another thing to translate these prescriptions into specific action. I say this not because I have reasoned it out, as you would a problem in geometry, not because I have deduced it from a series of carefully lined up arguments, but I say this from the lessons that I have gleaned in seven very arduous years of trying to apply these principles to the practice of our own firm. From this experience I know that when you begin to assert your rightful authority, when you actually begin to take full command of your projects, that you are going to be criticized and you are going to be maligned, you are seemingly going to be hated by everyone. For a time you are going to lose some business and you are going to lose some profits. However, if you can muster the intestinal fortitude that it takes to stick by your guns for six months or for a year, you will find this criticism slowly changing into a rather grudging respect. If you can stick by your guns for still another six months, giving your most dedicated effort, you will find that this grudging respect has changed into an open enthusiasm that is freely expressed by the most reputable and the most honest segment of the entire building industry. You will also have found that you will have driven from participation in your projects most of the dishonest and the unethical element of the construction industry. At the same time, you will find that you have won for yourself a new position of honor and a new position of dignity in the eyes of all of those whom you serve.

In closing, I want to make clear that I am not attempting to set myself up as a spokesman for either the architectural or the engineering profession or for any part of the building industry. However, I have had the advantage of viewing this situation from many angles as I have worked with tools as a tradesman, as a manufacturer's representative, as a contractor bidding and executing the work, as a draftsman and finally in my present position as an engineer and administrator. From this vantage point, I can see that our indecisive specifications, our ambiguity, and our failure to assume full and true responsibility for the work of our own hands, is carrying the design profession and

(See page 36)

# BAY AREA TRANSIT PROGRESS

PART I

By GEORGE S. HILL
Consulting Engineer

The Regional Rapid Transit Report to the San Francisco Bay Area Rapid Transit Commission pertains to the facilities required and their cost. The Report of the Stanford Research Institute deals with organization and financing. Both reports are excellent but advisory only. Theoretically, they show that a Bay Area rapid transit system is feasible and economically justified. Without such facilities, the alternatives would be far more costly although some of the costs would not be so clearly discernible. It is assumed that the system will be integrated with other transit facilities and that no competing facilities will be constructed. It will probably require at least two years of planning before construction is started, and the more thoroughly such planning it done the sooner the project will be completed.

## TRANSIT CLINIC

The nation's first clinic on transit was held May 27 and 28 at the Bismarck in Chicago. Metropolitan area transit problems were discussed from the point of view of public officials, farmers, merchants, real estate dealers, bankers, consulting engineers, transit engineers and operators, commuter railroad operators, parking lot operators, highway officials, planning and traffic engineers, and manufacturers. Much support was expressed for three basic concepts:

(1) That the job of moving people can be performed effectively and economically only if all forms of public transit are provided, integrated and coordinated.

(2) That the task of providing adequate and attractive public transit can be accomplished only through cooperation among all affected communities.

(3) That competitive fares will not cover the entire cost of acquiring rights-of-way and of building and maintaining rapid transit lines.

The conference was concerned with obtaining maximum value and efficiency for every transit dollar. It is planned to form a national organization to work vigorously for coordinating all forms of metropolitan area transit.

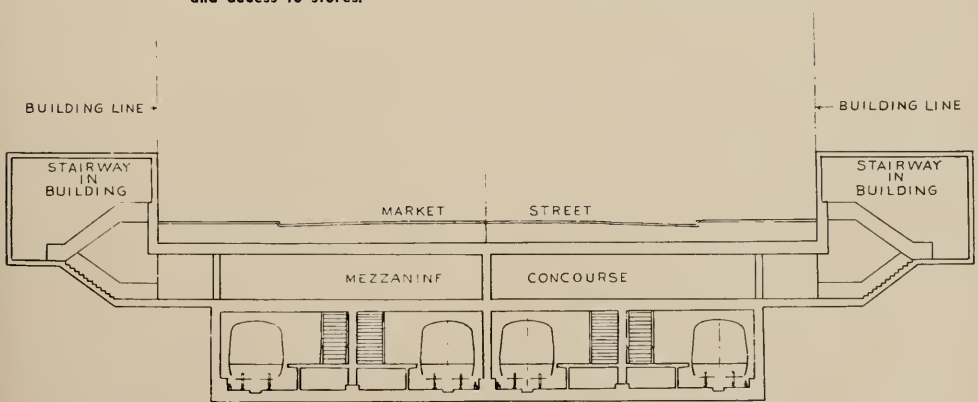
## AN OPPORTUNITY AND A CHALLENGE

To the San Francisco Bay area there is presented not only a great opportunity but also a challenge to take the lead in transit matters. The success of Bay Area transit will depend upon the degree of public support it receives. Public opinion appears to be favorable provided the system can be financed without undue increase in taxes compared with the benefits to be derived. The reports already made, and the enabling act which has been passed by the Legislature and signed by the governor, are useful and necessary first steps.

## ENABLING ACT

The enabling act provides for the formation not later than November 15, 1957, of the organization to

**Cross-section of Market Street subway station as proposed in Bay Area transit report, with city subway added. Note pedestrian concourse and access to stores.**



carry out its purposes. An important feature of the act is that it aims to preserve our democratic processes by requiring local consent, county by county. The "district" type of organization provides safeguards which are lacking in the "authority" type. Disapproval will automatically exclude any county not willing to participate. The act does not go into details either as to routes or construction, and permits contracts with other transit agencies. A general obligation bond issue will require approval by the voters who will thereby underwrite it. The Golden Gate Bridge bonds were thus underwritten, but to date the tolls have been sufficient to meet the costs.

## RAPID TRANSIT REPORT

The Regional Rapid Transit Report issued in January 1956 is filled with technical data of the latest developments in transit. The firm which made the survey has been in existence at least 70 years and there is no question as to the feasibility of the plans presented. Choices and decisions which are matters of policy are reserved to the public and its delegates, and although alternatives are given, preferences are stated. The plan is described as an interurban express system. Each community will provide connections with its own local system. High capacity during rush hours is essential. The relative merits of suspended systems such as monorail, and supported systems were considered carefully, and the supported system was recommended because it could be operated on the surface while the suspended system could not. The supported system is more in accord with American standard practice and therefore could be readily expanded using the facilities we now have. This is important in greatly reducing the total cost. Most of the advantages claimed for the suspended system by its promoters are also present in the supported system.

## SUBWAYS RECOMMENDED FOR CENTRAL AREAS

The report, like practically all of the engineering reports we have had during the last half-century, is decidedly in favor of subways for Market Street and opposed to elevated railways in downtown San Francisco. The report states: "The plan for interurban stations along Market Street must allow for the prospect that San Francisco may some day have grade-separated transit for its own urban movements. Clearly, such a local rapid transit system must make delivery along Market Street also. Thus, if interurban transit were to be elevated along Market Street, it must be assumed that local urban rapid transit would be elevated also. Such a program would involve four tracks with massive stations over 600 feet long covering essentially the entire width of Market Street.

"We are convinced that elevated construction over public streets involving four tracks and the stations to serve them would be aesthetically intolerable and would depreciate the very real estate values that they would be designed to sustain. Rapid transit penetrates the central business districts more effectively than any other form of transportation. It tremendously increases the capacity of business and shopping centers to receive customers and commuters." And referring to Toronto: "It is noteworthy that the construction of the subway has already strengthened downtown realty values which were being undermined by the growth of peripheral areas and has enormously increased realty values within a substantial distance from its route."

## TRANSBAY TUBE

In the Architect and Engineer of January and November 1954, the writer suggested the possibility of a direct physical connection between the Bay Bridge rail lines and a subway and this was discussed briefly on page 57 of the report. The construction of the Embarcadero Freeway ramps has now rendered the proposed connection impracticable. The use of a tube for the Bay crossing is conceded to be a better solution because of the limitations to effective use of the Bay Bridge. The travel time between San Francisco and Oakland can be reduced from 43 minutes to 11½ minutes, and this would appear to be sufficient justification for adopting the best plan available even at much greater cost. (One reservation we should make is that the tracks should not be removed from the Bay Bridge until a better rail connection has been built). A very important consideration is that the recommended plan makes possible the conversion of space on the Bay Bridge, now occupied by the rail lines, to motor vehicle use, thus adding two lanes. This change, and a rapid transit tube would be adequate to insure free flow of week-day traffic between San Francisco and the East-Bay, even if no additional automobile crossing is considered for 15 years.

## A PROPOSED CHANGE IN LOCATION OF TRANSBAY TUBE

There is still another variation to the Optimum Plan which may have been overlooked. It might be called a Modified Optimum Plan because it aims to retain the best features of that plan while adding others. The use of a trans-Bay tube with an approach in Washington Street differs from the location in Howard Street proposed by the Army-Navy Board. It is therefore proposed to connect this tube in Howard Street to a subway in First Street at the original shore line, with a station at the Bay Bridge Terminal. Instead of turning directly into Market Street it is proposed to use Bush Street with a two-way connection to Kearny Street and thence to Market Street and also to Columbus Avenue with stations at California Street, at Green Street, and also along Market Street. As practically all of this route is west of the original shore line, it will permit close coordination with future local rapid transit subways, by means of two-level stations.

(To Be Concluded Next Month)

## First Western Building

(From page 17)

struction work, and according to Rudolph Blaettler, building manager of First Western Building, many firms have already signed up for space through Banker & Banker, the leasing agents.

"With business firms and industrial organizations planning to expand their Western markets, and because of Oakland's favorable location, climate, sea, land and air transportation facilities, we expect downtown Oakland, and specifically the First Western Building, will become central office headquarters for more and more businesses as well as professional firms," declared Mr. Ryan, president of the Capital Company, a wholly-owned subsidiary of Transamerica Corporation, which is showing its faith in this and other major West Coast developments by a total investment in excess of $20,000,000.

Swinerton & Walberg Co., its affiliates Lindgren & Swinerton Inc. and Engineers, Limited, between them have been responsible for more than $1,200,000,000 worth of construction projects, including buildings like this First Western, factories, refineries, chemical plants, bridges, dams, railroads, wharves, arsenals, highways, pipelines and other vast undertakings. Started in 1888 with one small construction job, their projects have spread year by year and now cover most of the Western hemisphere, the United States, Hawaii, Central and South America.

The Burgess-Manning installation in the First Western Building is the largest contract to date on the West Coast for this comfort conditioning system. It was chosen for this building, because the owners wanted the optimum of heating, cooling, ventilation and sound control and also maintain maximum flexibility in dividing office space to meet tenant requirements. The Burgess-Manning system employs the principle of radiation for heating and cooling and is able to change quickly from one cycle to the other because of the light gauge aluminum radiator-acoustical panels.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## CALIFORNIA COUNCIL AIA

A new group health insurance program will soon be available to California architects and their employees as a result of action taken by the Council Board of Directors at their last meeting in Carmel.

Plans are well under way for the 1957 Annual Convention which is scheduled for October 2-6 at Hotel del Coronado, San Diego. Technical papers, round-table discussions and a program of entertainment are being arranged.

## NORTHERN CALIFORNIA CHAPTER

The August meeting was devoted to a general discussion of the entries in the Competition for the Student Union at the University of California.

A joint panel meeting with the Coast Valleys Chapter and Bay Area engineering groups, will be held August 27 in the Terrace Room, Hawaiian Gardens, San Jose. Subject of the meeting will be "Impacts of Atomic Energy on the Practice of the Design Profession." William M. Rice, AIA, Radiation Laboratory, University of California, Berkeley, will serve as Moderator.

## PASADENA CHAPTER

William H. T. Holden, P.E., national director of the California Society of Professional Engineers and member of the Air Pollution Committee of the Pasadena Chapter, C.S.P.E., and Edward Carig, P.E., of

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

LAS VEGAS: Walter F. Zick, President; Aloysius McDonald, Vice-President; Edward B. Hendricks, Sec.-Treas.; Directors: Walter F. Zick, Edward Hendricks, Charles E. Cox. Office of Secy., 106 S. Main St., Las Vegas.

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Southwest Washington Chapter:
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Utah Chapter:
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Washington State Chapter:
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Spokane Chapter:
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## ALLIED ARCHITECTURAL ORGANIZATIONS

San Francisco Architectural Club:
Hal Major, President; Camiel Van De Weghe, Vice-President; Francis E. Capone, Secretary; Stanley Howatt, Treasurer. Office of Secty., 507 Howard St., San Francisco.

Producers' Council—Southern California Chapter:
LeRoy Frandsen, President, Detroit Steel Products; Clay T. Snider, Vice-president, Minneapolis-Honeywell Regulator Co.; E. J. Lawson, Secretary, Aluminum Company of America; E. Phil Filsinger, Treasurer, Hermosa Tile Division, Gladding, McBean & Company. Office of the Secy., 1145 Wilshire Blvd., Los Angeles 17.

Producers' Council — Northern California Chapter (See Special Page)

Construction Specifications Institute—Los Angeles:
R. R. Coghlan, Jr., President; George Lamb, Vice-President; Peter Vogel, Secretary; Harry L. Miller, Treasurer.

Construction Specifications Institute—San Francisco:
Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Conley, Secretary. Office of Secy., 1245 Selby St., San Francisco 24.

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Carter Laboratories, Pasadena, 2nd vice-president of the Pasadena Chapter, C.S.P.E., presented a discussion of the air pollution situation in general throughout the world, as well as the Southern California problem, at the August meeting held in Eaton's Restaurant, Pasadena.

The speakers related what was being done about the problem, new rulings, preventative methods and devices being developed. The discussion was slanted towards the architect's problems relating to air pollution controls.

## OREGON CHAPTER

No regular meeting was held during August, the next meeting being scheduled for the third Tuesday in September.

Winners of the recent Honor Awards included: Warren Weber, architect, and the Welcome Community Presbyterian Church; John Storrs, architect, and the Portland Garden Club; Skidmore, Owings and Merrill, architects, and Messrs. Paquet, Wilson and Montague for their Clinic building; and William L. Fletcher, architect, and Mrs. and Mrs. William L. Fletcher for their residence. Saul Zaik, designer, and Mr. and Mrs. Phillip Feldman for their residence.

New members include Benjamin E. Cave, Corporate Member, and Edward Kirschbaum, Jr., Associate Member.

## COAST VALLEYS CHAPTER

New Construction in Europe was the theme of a recent Chapter meeting with Paul Huston describing his recent architectural tour of European capitals

(See page 38)

# WITH THE ENGINEERS

Structural Engineers Association of California

Henry M. Layne, President; Howard A. Schirmer, Vice-President; H. L. Manley, Secy.-Treas. Directors—Chas. De Maria, Wesley T. Hayes, Henry M. Layne, H. L. Manle, J. G. Middleton, J. F. Meehan, Clarence E. Rinne, A. A. Sauer, Howard A. Schirmer, and William T. Wheeler. Office of Secty., 9020 Balcom Ave., Northridge, Calif.

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American Society of Civil Engineers Los Angeles Section

George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## AMERICAN SOCIETY OF CIVIL ENGINEERS SAN FRANCISCO SECTION

Edward V. Laitone, Prof. of Mechanical Engineering at the University of California, Berkeley, was the principal speaker at the August meeting, taking as his subject "Development Problems of Guided Missiles and Supersonic Flight." Prof. Laitone based many of his observations on experiences gained while a consulting aeronautical engineer from 1941 through 1947 with the National Advisory Committee on Aeronautics, Curtis Wright Research Laboratory, and the Cornell Aeronautical Laboratory.

New members include: Joseph Anton and Norman C. Rubel, San Leandro; Richard E. Biggs, and Leon Nadolski, Oakland; Howard E. Blower, William W. Burton, John E. Earle and Paul G. Morken, Berkeley; Murray S. Bornstein, Eldon R. Floodeen, Myron Goldsmith, John B. Kelly, William H. Longmire, M. B. McGowan IV, H. John Mieras and William G. Weber, San Francisco.

L. H. Daniels and Lloyd R. Quayle, Palo Alto; George W. Fullerton, Redwood City; Tom Gentry and Homer J. Olsen, Walnut Creek; Richard E. Giegling, Novato; Robert A. Goodpasture, Sunnyvale; R. Arthur Hayler, Belmont; George E. Hervert and Charles Seim, El Cerrito; Newton L. Hinkson, Los Altos; Henry Karrer, Fresno; George A. Malony, Concord; J. P. Prendergast, Santa Clara; Alfred J. Roberts, Jr., Belmont; Otto C. vonSeggern, and Valerian Skrylov, Mill Valley; Myron E. Steele, Jr., Brisbane; Arthur G. Strassburger, Sausalito; and Don Tonelli of Richmond.

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## SOCIETY OF AMERICAN MILITARY ENGINEERS—San Francisco Post

John M. Ferry, Special Assistant for Installations, Office of the Secretary of the Air Force with headquarters in Washington, D. C. was the featured speaker at the August meeting held in the Presidio Officers Club, San Francisco.

Ferry presented a two-fold program: His experience during the last four years in installation work at Washington, and Construction of the Air Force Academy at Colorado Springs. Numerous slides and a film "Creation of a Monument" where shown, as was a model of the controversial Chapel.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—Los Angeles

The Annual Field Trip for senior and junior members will be held on September 19th, when members will visit the Kaiser Steel Mill in Fontana. A tour

Barbara Counties Branch. Robert L. Ryum, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Association
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

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American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy , c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

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of construction will be held at 4:30 p.m., inspection being made of the new 130 foot high blast furnace shell, the coke ovens now under construction, and new installations in the Club Mill and Strip Mill.

Following the inspection tour dinner will be served in the company's cafeteria.

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

The August meeting was arranged by the Junior Activities Committee and comprised a meeting devoted to the consideration of "Lightweight Prestressed Concrete" by Ray A. McCann; "Big Bend Flood Control Project" by Harry P. Weldon; "Squaw Valley" by Robert J. Toft; "Sequoia House" by Donald H. Moyer, and "Union-Engineers" by Donald F. Javete. All of the speakers are young engineers of the Bay Area.

Recent new members include: Samuel P. Laverty and Leonard F. Robinson, Members; and Myron Goldsmith and William F. Spenny, Affiliate Members.

## AMERICAN SOCIETY OF MECHANICAL ENGINEERS

James N. Landis, San Francisco engineer and vice-president of Bechtel Corporation, has been nominated to the presidency of The American Society of Mechanical Engineers, and will be installed in office, after a brief ballot of the membership, during the ASME annual meeting to be held in New York City in December.

Landis was graduated from the University of Michigan in 1922, with a B.S. degree in Mechanical Engineering. Between 1923 and 1948 he held a number of responsible engineering positions with the Brooklyn Edison and Consolidated Edison Companies of New York. In 1948 he moved to California and became chief power engineer for the Bechtel Corporation. He has been a vice-president for five years and has had charge of the firm's commercial atomic power work for the generation of electricity.

Other officers and directors named to serve with Landis include: Henry S. Aurand, Lieut. General, U.S. Army (Ret.), Honolulu, Hawaii, Vice-President Region VII; and Elmer O. Bergman, staff consultant of C. F. Braun & Co., Alhambra, California, Director of Codes and Standards.

(See next page)

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## STRUCTURAL ENGINEERS EXAMINATION STATE OF CALIFORNIA LICENSE

Examinations for authority to use the title "Structural Engineer" will be given November 29-30, with final filing date September 1st.

Applications should be sent to Room 529, 1020 "N" Street, Sacramento.

## ENVIRONMENTAL CONTROL INSTITUTE TO MEET

Dean L. M. K. Boelter, UCLA School of Engineering, will be the principal speaker at the 2-day conference to be held on the UCLA campus September 12-13, taking as his subject "Man's Effort to Control His Environment".

Other speakers who will participate in the nation's first attempt to integrate man's knowledge of indoor climate design with his health and comfort needs includes: Prof. L. P. Harrington of Yale University and John E. Haines of Minneapolis, Minnesota, past president American Society of Heating and Air Conditioning Engineers.

The conference is being sponsored by the University of California, Los Angeles, School of Engineering, in cooperation with the Institute of Heating and Air Conditioning Industries, an association of leading contractors, suppliers and manufacturers.

## STRUCTURAL ENGINEERS ASSOCIATION SOUTHERN CALIFORNIA

The August meeting was the Annual Field Day, observed this year at the Riviera Country Club, with the day and evening being devoted to golf, softball, recreation, dinner and entertainment. Reports are that the day was a huge success with a large number taking advantage of the opportunity to enjoy a day of rest and relaxation.

The list of new members includes: Elroy D. Baldner, Alvaro L. Collin, Reese L. Freeland, Jr., Frank B. Harvie, Stuart K. Harvie, Robert S. Henderson, Joseph Kinoshita, Richard E. O'Rear, Alvin Paley, and William P. Tenney all Associates. Hugh M. Elliott, Charles S. Glazebrook, James P. Hawke, and Rossiter L. White, Members; Richard A. Arnold, Kenneth K. Dixon, and Jack H. Montgomery, Student Members; and William E. Bradford and Victor A. Harvey, Allied Members.

## AMERICAN SOCIETY FOR TESTING MATERIALS

Richard T. Kropf, vice-president and director of research for Belding Heminway Co., Inc., New York, has been elected president of the American Society for Testing Materials.

A native of Chicago, Kropf received his B.S. degree from Massachusetts Institute of Technology in 1931.

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## ARCHITECT SELECTED

The architectural firm of Reynolds & Chamberlain, 3833 Piedmont Ave., Oakland, has been commissioned by the Oakland Unified School District to design the new Cox Elementary School building to be built in the city of Oakland.

## OFFICE AND LABORATORY

A 64x25 ft., composition roofing, concrete slab with asphalt tile flooring building will be built in Pasadena to serve as a mechanical test office building for the United Geophysical Company.

## ASIAN ARCHITECTS VISIT LA ARCHITECT

Two Indonesian architects were recent visitors in the Los Angeles offices of Victor Gruen and Associates through sponsorship of the Asia Foundation.

Oei Jan Beng and Oen Poo Hauw, seniors at the University of Architecture and fine arts in Bandung, Indonesia, will remain with the Gruen firm for two months studying American architecture and construction.

## OPENS PHOENIX BRANCH OFFICE

Tuttle-Kellogg, architects and engineers, Los Angeles announce opening of new offices in Phoenix, Arizona. They also have offices in Arcadia and Temple City, Alaska and Washington, D. C.

Efforts are concentrated in the fields of military, industrial and commercial architectural and engineering work.

The Phoenix branch will be in charge of Jack Lester, according to Leo Strecker, chairman of the board of Tuttle-Kellogg.

## A.I.A. Activities

(From page 31)

where he met all of the top architects at dinners and social events. His remarks were illustrated with slides.

The Auguts meeting is a joint conference with Bay Area architects and engineers on "The Impact of Atomic Energy on the Design Professions," scheduled for the 27th at the Hawaiian Gardens in San Jose.

## Wall Murals - Decorated Panels

(From page 20)

has pioneered the development of additional design techniques through the utilization of photographic and silk screen processes.

Many orders for religious wall murals are received from churches throughout and outside of the continental United States. An outstanding example of a religious wall mural is the hand decorated portrayal of the Virgin Mary holding the Christ Child which was made for "Our Lady of Perpetual Help" Church in Puerto Rico. Created with Glazed Ceramic Tile, the 4½x6 ft. mural employed colors of brilliant green, brown, blue and gold on a champagne color background.

The Shriner's Crippled Children's Hospital in Los Angeles by architects Harold Chambers, F.A.I.A. and Lester Hibbard, A.I.A., used a wall background of solid color tile with special tile murals depicting favorite children's stories such as "Jack and Jill," "Old King Cole" and others. The murals designed by Malcolm Cameron, were on 6x4¼ inch tiles.

A children's library in South San Francisco created a child's atmosphere by using an 8x8 ft. tile mural depicting the story of "Winken, Blinken and Nod."

Gladding, McBean & Co. spent two years in the preparation of eight wall panels for the West View Abbey Cemetery Mausoleum in Atlanta, Georgia. The West View Abbey panels designed by architect, Clarence L. Jay of Altadena, California, used 6x6 inch tile.

Hermosa Glazed Ceramic Tile was also used for wainscoating through the West View Abbey Mausoleum.


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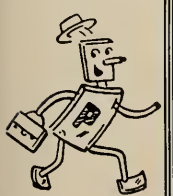

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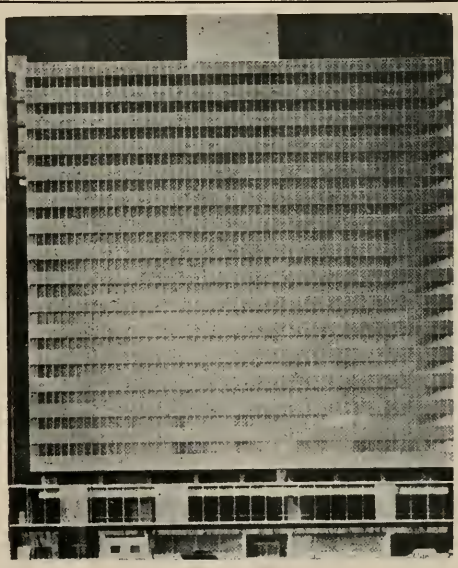

ENTIRE CURTAIN WALL
FABRICATED AND INSTALLED
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Berkeley, California

## Specifications Writing

(From page 26)

the whole building industry in a current that can end only in loss of livelihood and loss of prestige for all of us. It is time that we see ourselves in the mirror of our own work and start doing something about the unhealthy reflection that faces us. It is time that we recognize the human side of specification writing.

If the points that I have attempted to make and the logic that I have tried to apply will accomplish the sole purpose of provoking you into thinking of this situation long enough to even disagree with me, I shall feel that I have accomplished a worthwhile objective. The finest characteristic of this great land of ours is that when her people become aroused and aware, when they start to exchange opinions, and start being constructively critical of themselves, then truly we achieve our greatest moments. I am most honored and grateful for having had the opportunity of sharing this one with you.

*(Conclusion)*

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### CALIFORNIA STRUCTURAL ENGINEERS EXAMINATIONS SCHEDULED FOR FALL

Final filing date for application to take the California State Structural Engineers Examination must be postmarked by 12:00 midnight, September 1, 1957; however, an earlier date is advised.

Applications should be mailed to Room 529, 1020 N Street, Sacramento 14, California.

## California State Fair

(From page 23)

and unusual floral displays along with a series of typical California patio layouts.

Daily concerts, including all forms of music from classical to modern "rock 'n roll", will originate from the large outdoor bandstand offering refreshing music to fairgoers taking time out for a breather on the spacious green lawns.

After all these attractions if you still feel the need of further culture, a nightly display of spectacular fireworks will serve as a reminder an all-star cast is about to perform beneath the stars on the grandstand stage.

Also scheduled each evening is the West's oldest continuous horse show.

Where is this smallest city of cities within a city? Resting on 207 acres of lush green lawns and towering trees in the heart of the state's capitol. A visiting fairgoer can easily reach the grounds from any point in the city within a few minutes by car or especially scheduled express busses.

So put away any thought of toil for August 28-September 8 and join the crowds headed for the fairgrounds. This year's fair is packed with too much fun to miss.

THEODORE PARKER DRESSER, JR., Chief Engineer and Vice-President of Abbot A. Hanks, Inc., San Francisco, was given an Award of Merit by the American Society for Testing Materials at the Society's 60th annual meeting in Atlantic City recently. The award was in recognition of his long-time valued service in advancing the interests of ASTM on the West Coast, and for support of technical and administrative work.

*PICTURE CREDITS: Porcelain Enamel (Architectural Division) Publicity Division, Cover; Commercial Studios, Page 13, 14, 15, 16, 17; Gladding, McBean & Co., Page 18 (top); David P. Shelhamer, Page 18 (bottom); Alex Myers, Page 19 (top); Hermosa Tile Co., Page 19 (bottom), 20 (top); Philip Fein, Page 20 (bottom); California State Fair, Page 21, 22, 23.*

# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

JAPANESE TEMPLES AND TEA-HOUSES. By Werner Blaser. Dodge Books, 119 West 40th St., New York 18, N. Y. Price $12.75.

This new book is distinguished by its accomplishment of several major objectives. An exquisite collection of photographs and drawings of Japanese architecture; a penetrating brilliant study of the elements—historical, spiritual, social—which provided the inspiration of these structures, and which underline their significance in today's world. Serious perusal of both text and graphic material will quicken the reader's awareness that this new book accomplishes a third objective: The reader will grasp our own architecture in a perspective of discipline, tradition and reverence which, once common in the Western World, would appear to have been long forgotten.

HERE LIVED THE CALIFORNIANS. By Oscar Lewis. Rinehart & Company, Inc., 232 Madison Ave., New York 16, N. Y. Price $7.95.

This book, by a well known California writer, is a handsome tribute to the architecture of the Golden State of California. Text covers some one hundred notable houses, from Eureka in the North to San Diego in the South; arranged by historical periods rather than geographical; begins with a section on surviving adobes erected during the Spanish and Mexican eras, followed by a group of houses dating from Gold Rush times. Next are the Victorian houses of Civil War days and ornate mansions of the '70's and '80's the homes of the railroad and bonanza kings; then the '90's and early 1900's when many great estates were laid out on the San Francisco peninsula, Montecito, Pasadena and elsewhere.

PRACTICAL HOUSE CARPENTRY—Simplified Methods for Building. By J. Douglas Wilson. McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y. Price $5.50.

Clear instructions and illustrations on carpentry methods and useful background are combined in this book to make a practical manual of house carpentry. It is planned to help the carpenter or handyman who may not have had much experience in house building to develop as a craftsman in this field. Every step in constructing a one-story residence is explained and illustrated. Methods for doing each carpentry job in foundation work, framing, and exterior and interior finishing are included. Operations described are basically sound from the viewpoint of the carpentry trade and are presented in easily-readable language. Tools, building codes, safety, and materials are also covered by the author.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Construction stakes and accessories.** New, colored brochure showing by illustration and drawing how time can be saved and money earned by use and application of C&H construction stakes and accessories; various construction uses described. Free copy write DEPT-A&E, C&H Specialties Co., 909 Camelia St., Berkeley 6, California.

**New air diffusion selection control.** New 66-page catalog (AIA File No. 30-J) describes and illustrates complete line of grilles and registers manufactured by Waterloo Register Co.; contains 32 photographs, 21 drawings, selection tables for each of 26 standard sizes; prepared specifically for use by architects, engineers, contractors, air conditioning engineers, consulting engineers. For free copy write DEPT-A&E, Waterloo Register Co., Inc., P.O. Box 72, Waterloo, Iowa.

**Western pine mouldings in design and decoration.** Just published in full color a new brochure "Minding Your Moulding Manners"; shows how mouldings may be used in interiors and exteriors to accomplish such effects as stressing lines of direction, creating textures and patterns on otherwise flat surfaces, increasing visual attraction of flat planes in architecture, and new functional applications of mouldings; shows simple woodworking procedures designed to make moulding installation


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quick and simple. Write for your free copy, DEPT-A&E, Western Pine Association, Yeon Bldg., Portland 4, Oregon.

**House heating secrets.** New 3-color, profusely illustrated booklet describes in narrative style a young couple, "Nancy and Bob," who are house-hunting, and the advice they obtain from experts; feature of the booklet is a check-list on the back cover for use of the architect, contractor, builder, engineer, in evaluating the heating system of any home under consideration. Free copy write Heating Institute of Northern California, DEPT-A&E, Room 353, Flood Bldg., San Francisco 2.

**Horizontal shoring.** A new, well illustrated catalog, describes horizontal shoring for all beam and slab concrete floor forms; of particular interest to engineers, contractors and architects concerned with construction economy; features ways to save time and cut costs; includes charts of span lengths, slab thicknesses, span between walls; application and use is fully described. Free copy, write DEPT-A&E, Spanall of the Pacific, 600 California St., San Francisco, California.

**Designs for laboratory living.** New booklet, 120 pages, describes installation of Flexlab voltage distribution systems in more than 100 college laboratories; complete details of power supplies, methods of distribution within the laboratory and terminal facilities as well as descriptions of the components of the Flexlab line; well illustrated to show voltage distribution equipment in every type of laboratory including newest for nuclear study. Free copy write DEPT-A&E, The Standard Electric Time Co, 239 Logan St, Springfield, Mass.

**Engine driven electric generating plants.** "Blue Book" of general information concerning the selection of engine driven electric generating plants; pocket size; traces history of electric plant development and describes in simple, easy-to-understand language the three general groups of electric plants: AC, DC, and Battery Charging; discusses gasoline engine, diesel engine and gas engine power; cost of operation and installation of each type. Copy available write DEPT-A&E, D. W. Onan & Sons, Inc, Minneapolis, Minn.

**Rolling gymstand advances.** New bulletin illustrates and describes three important design improvements and three major appearance improvements now available on Wayne rolling gymstands; including new rolling foot system that provides 250% more foot support for spectator load; new braking system of 8-self locking, rubber padded brakes that give 4 times greater holding action; and new power operation that allows operation with ease and efficiency by 1 man; 11 photographs and line drawings illustrate the 6 features and show typical rolling gymstand installations. Free copy write DEPT-A&E, Wayne Iron Works, Wayne, Penna.

**Horn construction data handbook.** New 108 page handbook available to architects, engineers, contractors and purchasing agents in the West Coast area; over 30 construction tables, guides and time saving charts to help solve problems in building maintenance, construction and engineering; three separate indices permit quick, easy reference to over 95 specialty products for industrial, institutional or commercial users in the eleven Western states. Free copy write DEPT-A&E, A. C. Horn Co. Inc., 252 Townsend St. San Francisco 7.

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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 3% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$165.00 up (according to class of work).
Face Brick—Per 1 M laid—$250.00 and up (according to class of work).
Brick Steps—$2.00 lin. ft. & up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
Face Brick—$81.00 to $106.00 per M, truckload lots, delivered.

**Glazed Structural Units—Walls Erected—**

Clear Glazed—
2 x 6 x 12 Furring ..... $1.75 per sq. ft.
4 x 6 x 12 Partition ..... 2.00 per sq. ft.
4 x 6 x 12 Double Faced Partition ..... 2.25 per sq. ft.
For colored glaze add..... .30 per sq. ft.
Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.

Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**
8x5½x12-inches, per M..... $139.50
6x5½x12-inches, per M..... 105.00
4x5½x12-inches, per M..... 84.00

**Hollow Tile—**
12x12x2-inches, per M..... $146.75
12x12x3-inches, per M..... 156.85
12x12x4-inches, per M..... 177.10
12x12x6-inches, per M..... 235.30
F.O.B. Plant

### BUILDING PAPER & FELTS—

1 ply per 1000 ft. roll..... $5.30
2 ply per 1000 ft. roll..... 7.80
3 ply per 1000 ft. roll..... 9.70
Brownskin, Standard 500 ft. roll..... 6.85
Sisalkraft, reinforced, 500 ft. roll..... 8.50

**Sheathing Papers—**
Asphalt sheathing, 15-lb. roll..... $2.70
30-lb. roll..... 3.70
Dempcourse, 216-ft. roll..... 2.95
Blue Plasterboard, 60-lb. roll..... 5.10

**Felt Papers—**
Deadening felt, ¾-lb., 50-ft. roll..... $4.30
Deadening felt, 1-lb..... 5.05
Asphalt roofing, 15-lbs..... 2.70
Asphalt roofing, 30-lbs..... 3.70

**Roofing Papers—**
Standard Grade, 108-ft. roll, Light..... $2.50
Smooth Surface, Medium..... 2.90
Heavy..... 3.40
M. S. Extra Heavy..... 3.95

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| Sand— | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

Cement—
Common (all brands, paper sacks), Per Sack, small quantity (paper)..... $1.30
Carload lots, in bulk, per bbl..... 4.14
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L..... 2%
Trinity White, Meduse White, Celeveres White..... 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20
Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | — | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd | $5.85 | $7.75 |
| ⅜-inch to ¼-inch, per cu. yd | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $12.00 per square and up.
Hot coating work, $5.00 per square & up.
Meduse Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosel concrete waterproofing, 60c a cubic yd. and up.

### ELECTRIC WIRING—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipeve—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.25 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**

| Oak Flooring—T & G—Unfin.— | ⅝x2¼ $ | ½x2 $ | ⅜x2 $ | ¼x2 $ |
|---|---|---|---|---|
| Clear Qtd., White | $425 | $405 | | |
| Clear Qtd., Red | 405 | 380 | | |
| Select Qtd., Red or White | 355 | 340 | | |
| Cleer Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

| Prefinished Oak Flooring— | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ⅝ x 2¼ | 390.00 | 381.00 |
| ⅝ x 2¾ | 375.00 | 355.00 |
| ⅝ x 3¼ | 395.00 | 375.00 |
| ⅝ x 2¼ & 3¼ Ranch Plank | | 415.00 |

| Unfinished Maple Flooring— | |
|---|---|
| ⅝ x 2¼ First Grade | $390.00 |
| ⅝ x 2¼ 2nd Grade | 365.00 |
| ⅝ x 2¼ 2nd & Btr. Grade | 375.00 |
| ⅝ x 2¼ 3rd Grade | 240.00 |
| ⅝ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ⅝ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |
| Floor Layer Wage $2.83 per hr. | |

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ¼ in. Heat Absorbing Obscure | .54 per □ ft. |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| Furnaces—Gas Fired | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| Water Heaters—5-year guarantee | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

Flooring—

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry | 185.00 |

8 to 24 ft.

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-SIS ..... $120.00
½-inch, 4.0x8.0-SIS ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plysform ..... 160.00

Shingles (Rwd. not available)—
Red Cedar No. I—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.50 per square.

Pressure Treated Lumber—
Salt Treated ..... Add $35 per M to above
Creosoted, 6-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | |
|---|---|
| Two-coat work | per yard $ .90 |
| Three-coat work | per yard 1.35 |
| Cold water painting | per yard .45 |
| Whiteweshing | per yard .25 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | Raw | Boiled |
|---|---|---|
| Light iron drums | per gal. $2.28 | $2.34 |
| 5-gallon cans | per gal. 2.40 | 2.46 |
| 1-gallon cans | each 2.52 | 2.58 |
| Quart cans | each .71 | .72 |
| Pint cans | each .38 | .39 |
| ½-pint cans | each .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | Pure Gum Spirits |
|---|---|
| Light iron drums | per gal. $1.65 |
| 5-gallon cans | per gal. 1.76 |
| 1-gallon cans | each 1.88 |
| Quart cans | each .54 |
| Pint cans | each .31 |
| ½-pint cans | each .20 |

Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

Pioneer Dry White Lead—Litharge—Dry Red Lead
Red Lead in Oil

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ | $ |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.75 lineal foot |
| 8-inch | 3.25 lineal foot |
| 10-inch | 4.10 lineal foot |
| 12-inch | 5.20 lineal foot |
| Installation | 75c to $1.50 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid ½ to ¾ x 25" Resewn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.

| | |
|---|---|
| Standard, 4-in. | $ .28 |
| Standard, 6-in. | .51 |
| Standard, 8-in. | .74 |
| Standard, 12-in. | 1.61 |
| Standard, 24-in. | 6.42 |

Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless, (unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. .. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.95 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4¼x4¼". @ $1.95 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4¼x4¼" Tile. @ $1.70 to $2.00 per sq. ft.
Asphalt Tile Floor ⅛" ..... $ .25 - $ .35 sq. ft.
Light shades slightly higher.
Cork Tile—$.60 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

Furring Tile

| | F.O.B. S. F. |
|---|---|
| Scored 12 x 12, each | $ .17 |

| Kraftile: Per square foot Patio Tile—Niles Red | Small Lots | Large Lots |
|---|---|---|
| 12 x 12 x ⅔-inch, plain | $ .28 | $ .253 |
| 6 x 12 x ⅔-inch, plain | .295 | .265 |
| 6 x 6 x ⅔-inch, plain | .32 | .287 |

Building Tile—
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

Hollow Tile—
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
KAEMPER & BARRETT
San Francisco: 233 Industrial St., JU 6-6200
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL & AERIAL PHOTOGRAPHS**
FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
**Face Brick**
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
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San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
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**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

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**FIRE PROTECTION EQUIPMENT**

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BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

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**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
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**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
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**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
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San Jose: 1075 No. 10th St., CY 3-8844
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DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
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JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
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San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
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San Francisco: 200 Bush St., GA 1-2980

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Santa Rosa: 1665 Sebastopol Rd., SR 6354
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San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

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ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
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Alhambra: 909 So. Fremont St., Alhambra
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
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FREDERICK MEISWINKEL
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San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

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BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT SALES CO. OF NO. CALIF.
Berkeley: 1000 Ashby Ave., TH 3-4964

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OFFICE FURNITURE**

GENERAL FIREPROOFING CO.
1025 Howard St., HE 1-7070

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
D. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PHOTOGRAPHS**

**Construction Progress**

FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHINERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**SPRINKLERS**
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
San Francisco: 198 Mississippi St., UN 1-0273

**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
Los Angeles: 3450 Wilshire Blvd., DU 8-9591

**TIMBER TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**TRUCKING**
PASSETTI TRUCKING CO.
San Francisco: 264 Clementina St., GA 1-5297

**UNDERPINNING & SHORING**
D. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

**WALL PAPER**
WALLPAPERS, INC.
Oakland: 384 Grand Ave., GL 2-0451

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE 1-1345

**WEATHERSTOP**
TECON PRODUCTS, LTD.
Vancouver, B.C.: 681 E. Hastings St.
Seattle: 304 So. Alaskan Way

**WINDOW SHADES**
SHADES, INC.
San Francisco: 80 Tehama St., DO 2-7092

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**WOOD CARVING,** Furniture finishing and Design: Theodore H. Peterson, 10 California Ave., San Rafael. Phone GL 3-7335.

# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Barnardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.

The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**AIRPORT ADDITION.** Costa Mesa, Orange County. Board of Supervisors, Santa Ana, owner. 2-story addition to the administration building—$17,950.

**CHURCH ADD'N,** Watsonville, Santa Cruz County. First Presbyterian Church of Santa Cruz, owner. 1-story wood frame and stucco addition to provide educational facilities—$76,801. ARCHITECT: Alfred W. Johnson, 165 Jessie St., San Francisco. GENERAL CONTRACTOR: T. H. Rosewall Co., 544 Main St., Watsonville.

**NEW HIGH SCHOOL,** Hiram Johnson, Sacramento. Sacramento City Unified School District, owner. New Hiram W. Johnson Senior High School, 60 classrooms, administration, cafeteria, kitchen, library, special use rooms, gymnasium, swimming pool, toilet facilities—$3,724,674. ARCHITECT: Chas. F. Dean, 1521 I St., Sacramento. GENERAL CONTRACTOR: Campbell Construction, Erickson Construction, Lawrence Construction Companies (Joint Venture), 3020 V St., Sacramento.

**WAREHOUSE,** Sunnyvale, Santa Clara County. Libby, McNeil & Libby, owner. Modern warehouse to cost $267,000. ENGINEER: Hugh H. O'Neil, 610 16th St., Oakland. GENERAL CONTRACTOR: A. S. Holmes & Son, Inc., 9300 G Street, Oakland.

**CHURCH,** Campbell, Santa Clara County. First Methodist Church, Santa Clara, owner. 1-story wood frame, stucco, wood beams, sheetrock, refrigeration—$91,775. ARCHITECT: C. A. Steiner, 2941 Telegraph Ave., Berkeley. GENERAL CONTRACTOR: Oscar W. Meyer, 1681 Dry Creek Rd., San Jose.

**ARMORY "A" TYPE,** Placerville, El Dorado County. State of California, Sacramento, owner. Reinforced concrete foundations, concrete slab floor and walls, rigid frame, wood roof sheathing, composition roofing, steel sash, mechanical and electrical work; 10,000 sq. ft. of area—$118,440. ARCHITECT: State Architect, Sacramento. GENERAL CONTRACTOR: James P. Morton Const. Co.

**BOWLING CENTER,** Garden Grove. Garden Square Investment Co., Garden Grove, owner. 32 bowling lanes, 32,000 sq. ft. of area—$300,000.

**WELFARE BLDG.,** Hollister, San Benito County. County of San Benito, Hollister, owner. 1-story building containing 15 rooms—$41,950. ARCHITECT: Higgins & Root, 220 Meridian Rd., San Jose. GENERAL CONTRACTOR: Joseph W. Cullumber, 115-5th St., San Juan Bautista.

**INCINERATOR,** Napa State Hospital, Imola, Napa County. State of California, Sacramento, owner. 3000-lb. per hour refuse incinerator, auxiliary gas burners, breeching and tank; reinforced concrete

charge platform with steel frame, corrugated metal enclosure, grading, drainage, mechanical, electrical, paving — $58,916. ARCHITECT: State Architect, Sacramento. GENERAL CONTRACTOR: W. J. Kubon Co., 39-A Mary St., San Rafael.

**PHYSICAL EDUCATION,** Playfield, California State Polytechnic College, Pomona, Los Angeles County. Trustees of the College, Pomona, owner. Included is a football field, baseball field, three softball fields, four tennis courts, four basketball courts and a regulation collegiate running track with pole vault, shot-put, broad jump and javelin areas, for men and women — $235,488. GENERAL CONTRACTOR: Hight Construction Co., Los Angeles.

**SCHOOL ADD'N,** elementary school, Fullerton, Orange County. Fullerton Elementary School District, Fullerton, owner. Addition comprises 5 classrooms, Fern Drive School, and 6 classrooms at Valencia Park; concrete foundations—$85,063.

**SCHOOL AUTOMOBILE SHOP,** Harry Ellis High School, Richmond, Contra Costa County. Richmond Union High School District, Richmond, owner. Wood frame and stucco exterior—$65,990. ARCHITECT: Schmidts, Hardman & Wong, 1320 University Ave., Berkeley. GENERAL CONTRACTOR: Gaspard Const. Co., 6629 Beck St., Oakland.

**ENGINEERING BLDG.,** State College, Fresno. State of California, Sacramento, owner. 1-story reinforced concrete precast panels, structural steel pipe columns, steel beams, wood roof deck, composition roofing, insulation, concrete masonry block, movable metal partitions, steel sash and door, aluminum entrance, lathing, plastering, mill work, acoustical tile, ceramic and asphalt tile, venetian blinds, metal fencing, sheet metal work—$227,956. ARCHITECT: State Architect, Sacramento. GENERAL CONTRACTOR: E. R. Pedersen, 924 Fine Ave., Fresno.

**OFFICE & STORE,** Redondo Beach, Los Angeles County. Nardone, Redondo Beach, owner. 2-story building, stores 1st floor, offices 2nd floor, built-up roof, concrete slab, asphalt tile and vinyl floors, steel beams and columns, fixed glass, louvers, plastic panels, aluminum sliding doors, concrete block retaining wall, asphalt paving, 4200 sq. ft. of area. ARCHITECT: Henry J. Friel, 1820 S. Elena St., Redondo Beach. GENERAL CONTRACTOR: Arvil Wall, 244 Vista del Parque, Hollywood Riviera.

**RESTAURANT,** Norwalk, Los Angeles County. Burke, Norwalk, owner. Frame, stucco and exposed concrete aggregate restaurant building in Norwalk. Laminated wood beams, composition and gravel roof, concrete slab and resilient tile, white metal framed plate glass, acoustical plaster, indirect lighting, forced air heating, evaporative coolers, stone masonry, exposed concrete aggregate sign pylon; 3500 sq. ft. of area. ARCHITECT: Anderson & Heitman, 2901 E. Spring St., Long Beach. GENERAL CONTRACTOR: Wilke Construction Co., 10404 S. Stamy Rd., Whittier.

**KITCHEN & FOOTBALL BLEACHERS,** High School, La Habra, Orange County. Fullerton Union High School District, Fullerton, owner. The kitchen wing will be of tilt-up concrete construction, and the football bleachers of poured concrete. Work includes poured gypsum with reinforcing mesh roofing, concrete floor, metal sash, painting, plastering, plumbing, electrical work, heating, ventilating, sheet metal, structural and miscellaneous metal, kitchen equipment—$314,827. ARCHITECT: William H. Harrison, Architects Bldg., 816 W. 5th St., Los Angeles. GENERAL CONTRACTOR: Marvin E. Lawrence Co., 17846 S. Main St., Santa Ana.

**MILITARY HOUSING PROJECT,** Capehart, Travis Air Force Base, Solano County. U.S. Army Corps of Engineers, Sacramento, owner. Construction of family housing for military personnel under provisions of the Capehart Law—$6,824,000. GENERAL CONTRACTOR: Sungold, Inc., Riverside, & Inland Empire Blders., P.O. Box 2087, Riverside, Calif.

**COUNTRY CLUB ADD'N,** San Mateo. Peninsula Golf & Country Club, San Mateo, owner. Addition includes patio, locker room and men's bar—$108,000. ARCHITECT: Miller & Steiner, 220 E. 3rd Ave., San Mateo. GENERAL CONTRACTOR: Morris Daley and Harry Kime & Son (JT.V), 1350 Howard Ave., Burlingame.

**ELEMENTARY SCHOOL,** Cuddeback, Carlotta, Humboldt county. Cuddeback Elementary School District, Carlotta, owner. 1-Story wood frame construction, built-up roofing; 8-classrooms, administration room, multi-purpose room, kindergarten, toilets—$299,389. ARCHITECT: Gerald D. Matson, 537 G St., Eureka. GENERAL CONTRACTOR: A. C. Johnson & Son, 25-6th St., Eureka.

**GYMNASIUM BLDG.,** Union High School, Wasco, Kern county. Wasco Union High School District, owner. Wood frame construction with steel supports—$130,980. ARCHITECT: Stuhr & Hicks, 924 Truxton, Bakersfield. GENERAL CONTRACTORS: Dalke Bros, 636 E. Lerdo St., Shafter.

**POLICE STATION,** Bell, Los Angeles county. City of Bell, owner. 1-Story reinforced brick Police Station, 6000 sq.ft. area, composition roofing, plate glass windows and doors, steel sash, concrete slab and asphalt tile covered floors, acoustical tile ceilings, air conditioning, plumbing, electrical, ceramic tile in restrooms, attached car shelter—$137,544. ARCHITECT: Risley & Gould, 2502 W. 3rd St., Los Angeles. GENERAL CONTRACTOR: Samuelson Bros., 3441 Ocean View Blvd., Glendale.

**ELECTRONICS PLANT,** San Carlos, San Mateo county. Eitel-McCullough Inc., San Mateo, owner. 1 and 2-Story steel frame and composition roofing Electronics Mfg. Plant; concrete footings, tilt-up concrete walls — $1,596,770. GENERAL CONTRACTOR: Williams & Burrows, 500 Harbor Blvd., Piedmont.

**CHAPEL,** Pleasant Hills, Contra Costa county. Oblates of Mary Immaculate, Oakland, owner. 1-Story wood frame and stucco chapel; concrete and tile floors, built-up roofing tar and gravel—$256,000. ARCHITECT: Edward Cerutti, 1440 Broadway, Oakland. GENERAL CONTRACTOR: Carrico Const. Co., 365 Ocean Ave., San Francisco.

**HOSPITAL ADD'N,** Nursing Wing, Woodland, Yolo county. Woodland Clinic


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Hospital, Woodland, owner. 2-Story with connection corridors, addition to the present hospital; 7,700 sq.ft. area, flat slab reinforced concrete construction—$301,000. ARCHITECT: Mitchell Van Bourg & Associates, Hotel Claremont, Berkeley. GENERAL CONTRACTOR: Jay Bailey Const. Co., P. O. Box 148, Woodland.

**COMMERCIAL BLDG.,** Canoga Park, Los Angeles county. Frame and stucco and brick veneer, commercial building in Canoga Park; 3980 sq.ft. area, composition roof, pipe columns, evaporative coolers, unit heaters, plate glass, overhead doors, toilets — $20,000. GENERAL CONTRACTOR: F. Salletmaier, 7034 Vassar Ave., Canoga Park.


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**CLASSROOM BLDG.,** State College, Fresno. State of California, Dept. Public Works, Sacramento, owner. ARCHITECT: Anson Boyd, State Architect, Sacramento—$396,339. GENERAL CONTRACTOR: E. R. Pedersen, 924 Fine Ave., Fresno.

**CAR WASH,** Redondo Beach, Los Angeles county. South Bay Car Wash, Los Angeles, owner. Brick car wash, rock roof, concrete slab and asphalt tile floors, laminated beams, jalousy windows, plumbing, electrical, fixed glass, plastering; 4000 sq.ft. area. ARCHITECT: J. Arthur Drielsman, 1914 S. Vermont Ave., Los Angeles.

**SOCIAL SCIENCE & ARTS BLDG.,** U. C. Berkeley, Alameda county. Board of Regents, U. C. Berkeley, owner. Estimated cost of construction—$1,891,432. ARCHITECT: Gardiner Dailey, FAIA, & Associates, 442 Post St., San Francisco. STRUCTURAL ENGINEER: H. J. Brunnier, Sharon Bldg., San Francisco. MECHANICAL ENGINEERING: Keller & Gannon, 126 Post St., San Francisco. GENERAL CONTRACTOR: John E. Branagh & Son, 42 La Salle, Piedmont.

**ELEMENTARY SCHOOL,** Curtis Creek, Standard, Tuolumne county. Curtis Creek Elementary School District, Standard, owner. Wood frame, stucco, concrete block, asbestos shingle roofing, concrete floor; facilities include administration, 8-classrooms, multi-purpose room, kitchen, kindergarten and toilets—$354,172. ARCHITECT: Warren C. Wong, 2644 Pacific St., Stockton. GENERAL CONTRACTOR: Rubino & Gullickson, 41 E. Wilson Way, Stockton.

**OFFICE & WAREHOUSE,** Downey, Los Angeles county. George M. Cohen, Los Angeles, owner. Pre-cast concrete wall office and warehouse building, structural steel, built-up roofing, slab floors, metal sash, metal doors, aluminum trim on front wall, drywall and plaster interior, asphalt tile, acoustic tile, toilets, heating and ventilating—$90,000. ENGINEER: Clyde Carpenter & Associates, 2614 S. Peck Rd., Monrovia.

**JEWISH COMMUNITY CENTER,** Oakland, Alameda county. Jewish Welfare Federation, Oakland, owner. 1-and part 2-story community center building containing 30,000 sq.ft. of offices, club rooms, and gymnasium — $439,700. ARCHITECT: Warnecke & Warnecke, Financial Center Bldg., Oakland. GENERAL CONTRACTOR: Christensen & Lyons, 3454 Harlan St., Oakland.

**ATHLETIC & GROUND IMPROVEMENTS,** Pasadena, Los Angeles County. Board of Education, Pasadena, owner. Construction of a baseball field, public toilet facilities and concessions building; demolition of agriculture building and ground improvement—$85,315. Architect: Robert H. Ainsworth and Kenneth S. Wing, 1199 E. Walnut St, Pasedena. GENERAL CONTRACTOR: Daniel Bros. Const. Co., 180 S. Rosemead, Pasadena.

**SAINT GERTRUDES CHURCH,** Stockton, San Joaquin county. Roman Catholic Archbishop of San Francisco, owner. Old church to be razed and site cleared for construction of new, contemporary design church; brick and stucco veneer, stained glass windows of old church to be adapted to new use; seating capacity 800; 64x132 ft. 36 ft. bell tower—$167,000. ARCHITECT: Donald F. Haines & Associates, San Jose and Stockton. GENERAL CONTRACTOR: Shepherd & Green, P. O. Box 1078, Stockton.


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# IN THE NEWS

### FRANK T. KEGLEY IS HONORED

Frank T. Kegley, partner in the Los Angeles architecural firm of Kegley, Westphall and Arbogast, has been elected a Member Emeritus of the American Institute of Architects in recognition of his more than 47 active years in the profession.

Graduating from the University of Illinois in 1908, he became a licensed practicing architect in California in 1910. During World War II he was Supervisor of ship building for the US Navy in the Great Lakes area, and became a partner of Kegley, Westphall and Arbogast in Los Angeles four years ago.

### ARCHITECTS MOVE TO NEW LOCATION

The new firm of Johnson & Mortensen, AIA, Architects, have moved into new offices at 142 North California Street, Exchange Building, Stockton, California, where they will engage in the general practice of architecture.

New files are being set-up and the firm would be interested in receiving latest manufacturers literature.

### NEW SUPERIOR CEMENT FINISHER AVAILABLE

Two new Superior "Lo-Boy" cement finishers capable of finishing in ½ the former time and having extreme stability, easier handling and loading, and unusually strong, simple construction.

Both models measure only 16½" from blades to engine top (32" former models); new completely enclosed transmission with self contained clutch; planetary gear design, 36 to 1 ratio, direct connection to engine by vertical, centralized, ball bearing mounted shaft; lubricated for life; uses 2¾ h.p. engine with 35" ring; rigid cast steel blade supporting arms on both models are surface ground and jig bored. Complete data from Superior Cement Tool Corpn, 11616 Wright Road, Lyndwood, California.

### KAISER ALUMINUM AUDITORIUM DOME

The first stressed-skin aluminum dome auditorium in the United States is scheduled for construction in Virginia Beach, Virginia, according to Henry J. Kaiser, Chairman of the Board and President of Kaiser Aluminum & Chemical Corpn.

The dome shell, designed by Kaiser Aluminum engineers, will top a new civic center auditorium being designed by the Norfolk architectural firm of Oliver and Smith.

A similar type dome was used in recent construction at the Hawaiian Village Hotel in Honolulu, Hawaii.

### WINERY BOTTLING AND STORAGE PLANT

Architect Germano Milono, 402 Jackson Street, San Francisco, is completing plans for construction of a 1-story and mezzanine concrete block, prestressed and cast concrete roof panel winery bottling plant and storage warehouse for the Charles Krug Winery in St. Helena.

### ROY A. SKOVER JOINS OAKLAND COMPANY

Roy A. Skover, with considerable experience in the air handling field, has joined the Oakland offices of the Sanford Mechanical Equipment Co, Inc., according to a recent announcement.

### PROPOSED SUNNYVALE INN PROJECT ANNOUNCED

Architect Ned Abrams, 575 Britton Avenue, Sunnyvale, is preparing preliminary drawings for construction of a multi-million dollar hotel to be built on Bayshore Highway between Lawrence Station Road and Mt. View-Alviso Road, for the Sunnyvale Inn Corp.

The project will comprise hotel facilities covering 13-acre site, completely landscaped. Accommodations will be provided for 104 guest rooms and suites, shops, convention hall, and an additional 10-acres will be developed for apartments and Commercial buildings.

### ROOF SCUTTLE SAVES COSTS

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### DON LYONS NAMED RESEARCH DIRECTOR

M. Don Lyons, president and operating head of the M. Don Lyons Company, Inc., an independent research organization, has been appointed director of market research for the Sun Chemical Corpn, according to an announcement by Norman E. Alexander, president.

In his new position, Lyons will investigate and determine the future potential of


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### NEW HOTEL FOR SAUSALITO

Architect John Lord King, 244 Kearney St., San Francisco, is preparing preliminary plans for construction of a multi-building hotel development in Sausalito for the Grace Management Corp. of San Francisco.

The project is contemplated in a Japanese Sea motif and will include a waterfront hotel, 5-guestroom buildings, restaurant building, refreshment building, boat dock for small sail and motor craft, swimming pool and will be completely landscaped. Buildings, generally, will be 2-story construction and built on stilts to give characteristic Japanese architecture design. Exterior of buildings will be of wood and glass. Estimated cost of the work is $1,500,000.

### ATHLETIC FIELD

The architectural firm of Allison & Rible, 3670 Wilshire Blvd., Los Angeles, are completing plans and specifications for construction of an athletic field on the Riverside Campus of the University of California, for the Board of Regents of the University of California.

The project includes grading, turfing, sprinkler work, running track, and field event facilities.

### CLEARLAKE ELEMENTARY SCHOOL ADDITION

The architectural firm of Goetz & Hansen, 266 Mt. Blvd., Oakland, are completing drawings for construction of a 1-story addition to the Clearlake Elementary School in Lakeport for the Clearlake Elementary School District.

The Type 5 construction will include built-up roofing and 2000 sq. ft. of area to provide facilities for 2 classrooms and toilet rooms.

### OFFICE BLDG.

Architect Gates W. Burrows, 1606 Bush St., Santa Ana, is completing working drawings for construction of an office building in Santa Ana for the STC Corp. of Santa Ana.

Facilities will include offices for an attorney and accountant, and will be constructed of wood frame and stucco, slab floor, composition roof, plaster interior, asphalt tile, air conditioning, acoustical plaster, metal sash, fluorescent lighting, electrical, plumbing, book shelves, rest rooms and blacktop paving in parking area.

### ANAHEIM SCHOOL SITE APPROVED

The Anaheim School District has announced plans for construction of a new elementary school on a 10-acre site at the northeast corner of La Palma Ave. and Sunkist St.

The location of the school plant has been approved by the Orange County Planning Commission.

### NEW LIBRARY IS STARTED

Architect H. L. Gogerty, 3123 W. 8th, Los Angeles, has completed drawings and


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work started on construction of a new $150,000 library for the Antelope Valley Joint Union High School in Lancaster by Paul W. Speer, Inc., general contractors.

The library includes a spacious outdoor terrace and will occupy 11,000 sq. ft. of area.

### SWIMMING POOL AND BATH HOUSE

Architects Stiles and Robert Clements, 210 W. 7th St., Los Angeles, have completed plans for construction of a new boathouse and swimming pool at Southwest Sportsmen's Park, Los Angeles, for the County Board of Supervisors.

A covered 100 x 50 ft. swimming pool, bathhouse, concession area, landscaping, sprinkler system, walks, fencing, floodlighting, mechanical features including heating of pool water, decks are included in the project, estimated to cost $373,450. Construction will be Type III, reinforced brick exterior walls, concrete floor slab on grade except for basement, a mechanical equipment portion, concrete block interior partitions, roof steel decking on steel girders with insulation and built-up composition covering.

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### AUTO SALES AND OFFICE

Architect W. L. Duquette & Associates, 330 S. Rosemead Blvd., Pasadena, are completing drawings for construction of a 1-story, reinforced masonry auto sales and office building in Pasadena for Lloyd Pearson Studebaker Agency.

The 3016 sq. ft. building will be of built-up composition roofing, plate glass windows, aluminum store front, steel work, concrete slab floor, plumbing and electrical work, asphalt paving, planting and landscaping.

### GYMNASIUM AND ASSEMBLY HALL

Architect Harold C. Wildman, 3701 Atlantic Ave., Long Beach, is preparing plans for construction of a gymnasium and assembly building in Belleflower for the Belleflower Christian High School Board of Trustees.

Both buildings will be tilt-up concrete construction, composition rock and gravel roofing; gymnasium to have concrete columns, steel arches, maple flooring, telescoping bleachers, steel sash, stone veneer, acoustical ceiling treatment, forced air heating, gymnasium equipment, ceramic tile showers, lockers and baskets in shower rooms; assembly building to have concrete floor with asphalt tile platform, hardwood stage, stainless steel counters and kitchen equipment.

### OFFICE BUILDING RENO, NEVADA

Architects Vhay & Grow, 33 E. Truckee River Lane, Reno, Nevada, are preparing drawings for construction of a new $190,000 office building in Reno for Wm. Sanford. The building will be 2 story with basement.

### NEW WALL BRACKET LIGHTING FIXTURE

A new commercial wall-bracket lighting fixture of die-cast aluminum is announced that features heavy die-cast, rust proof construction and is designed for either interior or exterior installation.

Screw-in white opal enclosing globes of uniform color density are made weatherproof by cork gaskets—each globe accommodates a 150-watt lamp; lights may be adjusted to any one of 4 different positions to suit architectural applications; may be mounted side by side, or one on top of another; easily adjusted; supplied in standard finishes, fits 3¼" or 4" outlet box. Complete information from Prescolite Mfg. Corp, 2229 4th St, Berkeley, California.

### CITY OF LOS ANGELES SEEKING ARCHITECTS

Professional architects are needed to fill positions in the civil service of the City of Los Angeles as Architectural Associate with a salary range of $600 to $797 per month. Two or three years experience in professional architectural work, depending upon their educational background, is required.

Complete information is available from


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### ARCHITECTS NEW OFFICES

The architectural firm of Slack W. & David Winburn recently announced opening of offices in 225 Surety Life Building, 1935 South Main Street, Salt Lake City, Utah, where they will engage in the general practice of architecture.

The firm was formerly located in the Beason Building, Salt Lake City.

### M. C. VERY NAMED DISTRICT MANAGER

Milton C. Very has been named district manager of the Southwest and Gulf territories for Fluorescent Fixtures of California, according to an announcement by Charles D. Buchanan, vice president and sales manager of the San Francisco firm.

Very, associated with the company since 1954 has been in the lighting field in Northern California for the past ten years. He is a graduate of the University of California with a B. S. in Electrical Engineering.

### LA ARCHITECT DESIGNS CINCINNATI PROJECT

Welton Becket & Associates, Los Angeles architects have been commissioned by the 20th Century Realty Company of Cincinnati, Ohio, to design a 15-story limit height apartment-office building tower at the edge of downtown Cincinnati.

The multi-million dollar project will contain a total of 145,000 sq. ft. including 57,000 sq. ft. of office space.

### PRESTRESSED CONCRETE INSTITUTE OFFICERS

Harold A. Price, Basalt Rock Company, Napa, was elected vice president of the Prestressed Concrete Institute at the third annual meeting of the Institute, held in San Francisco the latter part of July.

Peter J. Verna Jr., of Concrete Materials Inc., Charlotte, N.C. was elected secretary-treasurer of the institute and Ben C. Gerwick of Ben C. Gerwick Inc., San Francisco, was chosen president.

### EL CERRITO LARGE SHOPPING CENTER

Architect Welton Becket & Associates, 153 Maiden Lane, San Francisco, is preparing plans and specifications for construction of a 31-acre shopping center on San Pablo Avenue in El Cerrito for Capwell Department Store of Oakland.

The $2,000,000 project will include a 2-story, 350,000 sq.ft., reinforced concrete and frame construction building.

### NEW CHURCH SAN CARLOS

Architect Kingsford Jones, 615 Menlo Ave., Menlo Park, is completing plans and specifications for construction of a 2-story church in San Carlos for the Trinity Presbyterian Church of San Carlos.

The first floor will be reinforced concrete and the second floor wood frame and laminated arches. Estimated cost of the work is $350,000.

### CHALLENGER SPECIAL LOCK PROVIDES POSITIVE PRIVACY

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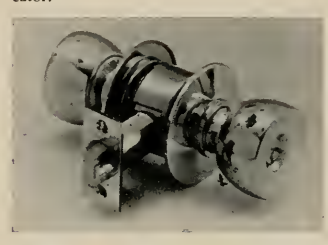

When door is locked from inside a special pin moves within lock set to block portion of key slot, making it impossible for any regular key to be fully inserted into lock, and door cannot be opened from outside. A red pin projects adjacent to the key slot on the outside for visual indicator that door is locked. May be opened by an emergency master key. This new lock is a pin tumbler type, available in choice of contemporary knob designs. Complete data from Challenger Lock Co, 4865 Exposition Blvd., Los Angeles 16.

### BURKE RUBBER COMPANY MOVES TO SAN JOSE

The Burke Rubber Company, Inc., has moved into a new plant and general office building in San Jose, California.

Architect Arland A. Dirlam, Inc., 739 Boylston Street, Boston, Massachusetts, was the designer of the facilities.

### NEW CLASSROOM UNIT DEDICATED

Architects Smith, Powell and Morgridge, 208 W. 8th St., Los Angeles, designed the new Joseph H. Beck classroom addition to the Newport Beach High School, recently dedicated with colorful


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ceremonies honoring the pioneer developer of the Newport Harbor area, Joseph H. Beck.

Secrest & Fish of Whittier were the general contractors.

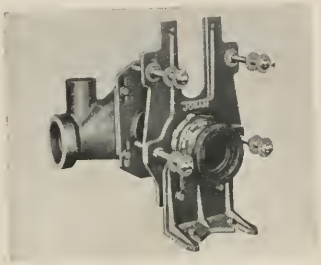
### SAN FRANCISCO BRANCH LIBRARY

Architects Appleton & Wolford, 251 Post St., San Francisco, are preparing plans and specifications for the construction of a new Library building in the North Beach Playground area for the City and County of San Francisco.

The facilities will contain 4500 sq. ft. of area.

### JOSAM CARRIERS AND CLOSET FITTINGS

A new and completely revolutionary line of carriers and closet fittings for wall-hung fixture installations called "Unitron" is announced by Josam.



Following exhaustive study this new, modern, functional, simplified design offers easier, more efficient installation and requires 1/3 less pipe space; packed in box with adjustable extension, gaskets, coupling nipple and necessary nuts, studs, washers and caps to adapt unit to any type or make fixture. Details and description of full line available from Josam Mfg. Co., Michigan City, Ind.

### LIVERMORE NEW ELEMENTARY SCHOOL

Architects Anderson & Simonds, 2800 Park Blvd., Oakland, are working on plans and specifications for construction of a new Elementary School to be built in Livermore for the Livermore Elementary School District.

The new facilities will include administration room, 14 classrooms, 2 kindergartens, multi-purpose room, arts and crafts room, music room, kitchen, and toilet rooms. Estimated cost of the project is $600,000.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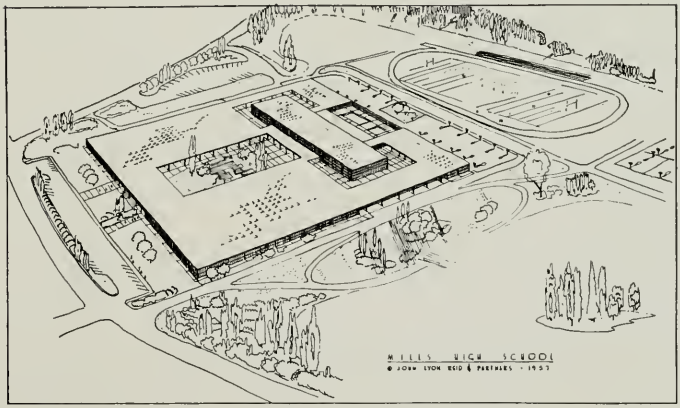


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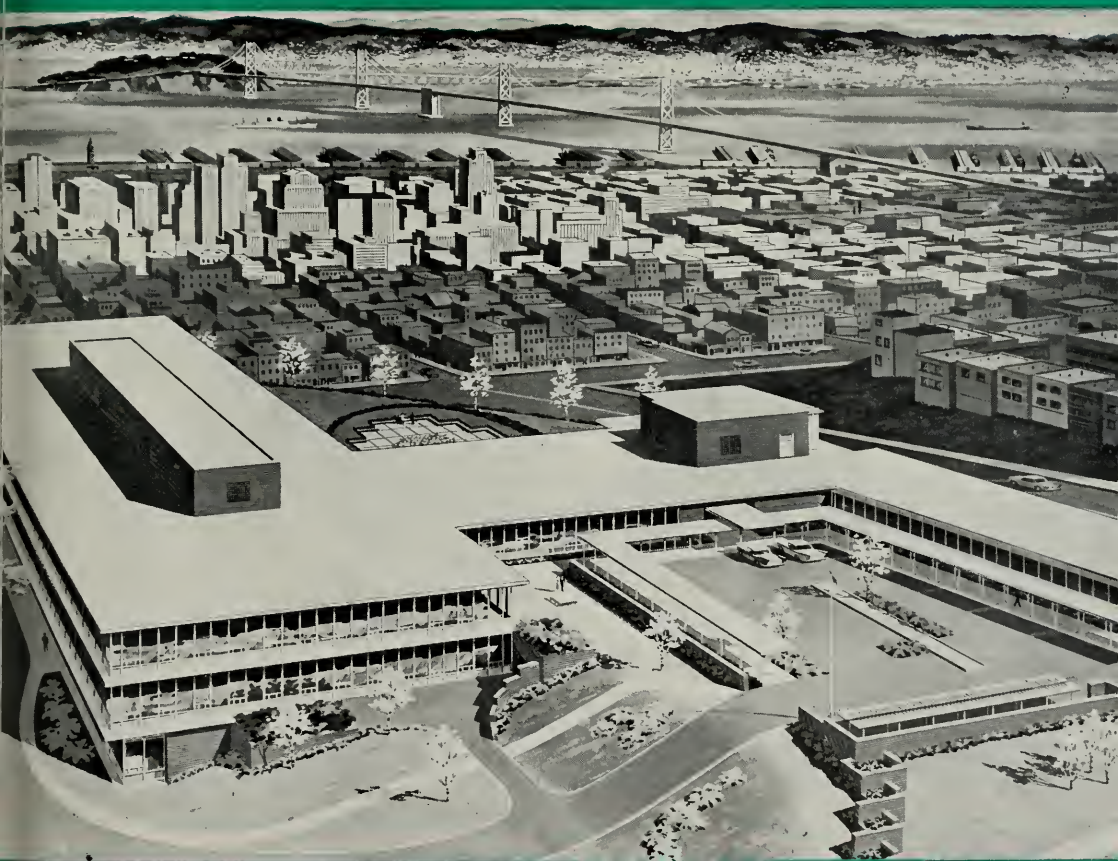

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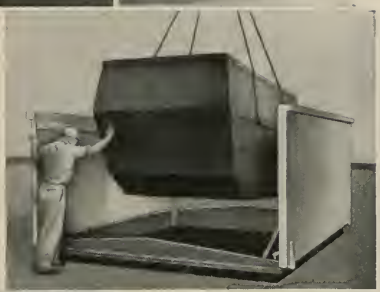

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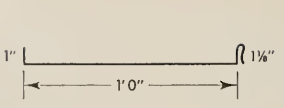


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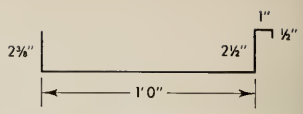
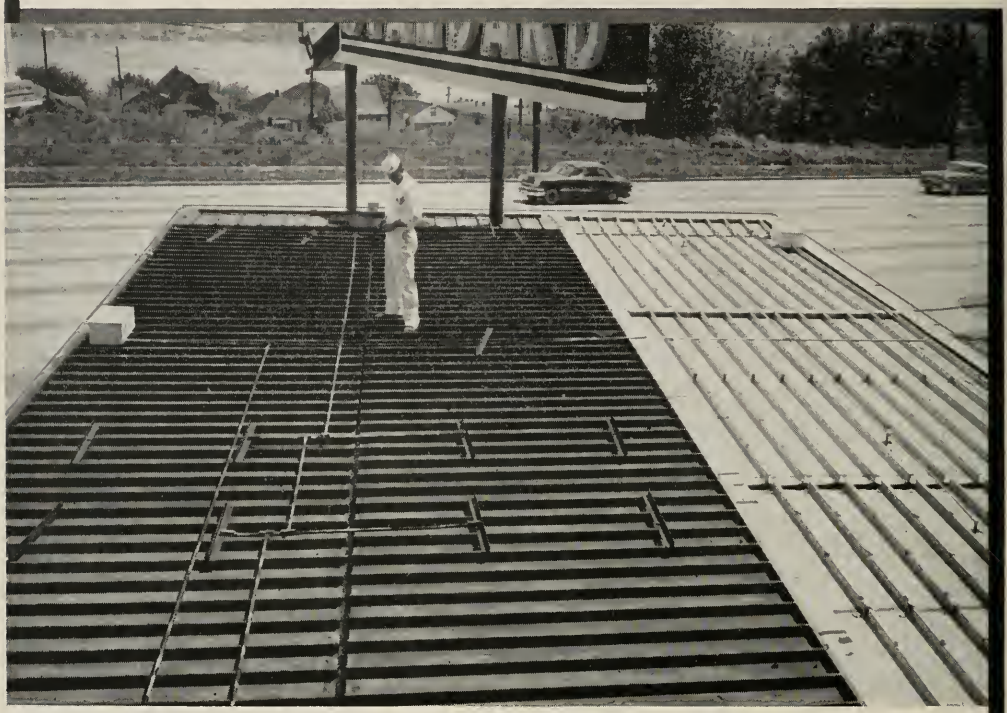
In addition to press brake fabrication described below, Fentron Industries often use the Yoder (continuous) method in which roof sections are made to any length and standing seams are crimped together for greater strength.




PRESS BRAKE



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Vol. 210 No. 3

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**COVER PICTURE**

FIREMAN'S FUND
INSURANCE COMPANY

San Francisco, California

Recently completed Home Office and Pacific Department headquarters occupies 10.2 acre site and includes 190,000 sq. ft. office space.

See page 11 for complete story and details.

*Photo Courtesy*
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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

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# . EDITORIAL NOTES .

## WHY NOT "FREE SKETCHES" FROM ARCHITECTS?

**By Elmer Grey**
**Past Fellow of the A.I.A.**

Since I am very well along in years, and upon my request, the State Board of Architectural Examiners have placed me on the inactive list of California architects. But my interest in architecture has not lagged (far from it!) nor that in the welfare of the architectural profession in general—hence I write this for Architect & Engineer..

Many years ago, when the Directors of First Church of Christ Scientist of Los Angeles contemplated the erection of a fine and costly new church edifice, a member of the Board approached me and asked whether I did not want to submit sketches for the proposed new building for the Board's consideration—without of course any obligation on their part.

Immediately, I told him that I did not conduct my business in that way. He asked why. I told him that in order to submit sketches that would be worth anything I would have to give the problem considerable study, that the initial part of the work on such a job required the most experience, the most skill and a great deal of time; and that if all architects gave away their time in that way they would have to double their fees on all their work in order to make a decent livelihood; that it was not fair to ask architects to give away something for nothing, any more than you would think of asking a lawyer or a physician to do that.

"Well" he said, "one of your brother architects has agreed to do it." "If he wants to be that foolish" I said, "it's no reason I should make a fool of myself." He went away disconcerted. But in a few days he came back and asked whether I would be willing to meet with the Board of Directors some evening and explain my point of view to them. I told him I would gladly do that, and such a meeting shortly took place. A few days afterwards I was notified that the job was mine.

The award was announced in the Los Angeles morning paper; and that same morning, soon after I opened my office, one of my "brother architects" came in, holding a roll of plans under his arm.

He said, "Grey, I see by this morning's paper that you have been given the commission to plan the new First Church of Christ Scientist. I have come in to say that I have been working on that problem for months, have put my whole heart and soul into it, and if my plans would be of any use to you, you are welcome to have them."

The poor fellow seemed heart broken, but I could offer him no sympathy. I thanked him for the spirit of his errand but told him that I did not want to see his plans, that I wished to be entirely unbiased by another's views while studying the problem. I wanted to solve it in my own way. I also advised him to be more judicious in the future.

We in America are noted for our get-together spirit. That spirit helped us establish our first colony, settle the West and build the great and powerful federation of our forty-eight states.

We found that the principle of federation has other applications, too. Today we use it not only to help ourselves but to help others as well, we've discovered we can give more effectively the **UNITED WAY.**

This **UNITED** approach enabled us all to get together and work for the common good. It enables us through once-a-year-all-out campaigns to help those of our neighbors who need our help. When everybody gives the **UNITED WAY,** then everybody benefits: babies and children needing care and protection, families in need of counseling, boys and girls needing supervised leisure-time activities, the handicapped who want an opportunity to learn new skills, the sick who require nursing, clinic or hospital care and the aged who are chronically ill and lonely.

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# NEWS and COMMENT ON ART

### SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, will feature the annual Watercolor, drawing, and Print Exhibition of the San Francisco Art Association during September, together with the Syracuse National Ceramic Annual.

### OAKLAND ART MUSEUM

The Oakland Art Museum, 1000 Fallon Street, under the direction of Paul Mills, Curator, is presenting the third joint Print and Sculpture Exhibition, starting October 5. The event is being sponsored by the museum and the Bay Printmakers Society. Kenneth Patchen, distinguished experimental poet, and Alan W. Watts, internationally recognized lecturer, philosopher, and author, will serve as judges of this year's exhibition.

### CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Andre Laherrere, is presenting an exhibition of Paintings by William R. Cameron and Serge Trubach.

The Little Gallery will feature a group of Pastels by Elliott Johnson Jr.

## M. H. DE YOUNG MEMORIAL MUSEUM

**Golden Gate Park San Francisco**

Portrait of

Dona Mariana of Austria

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Spanish, 1599-1660

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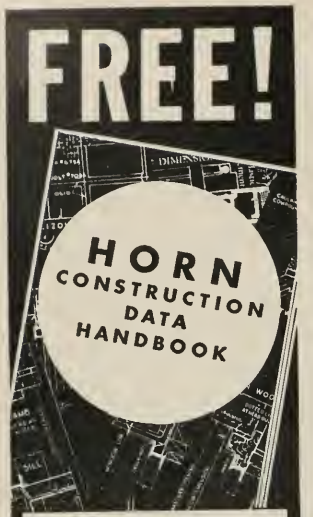


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## SEATTLE HOSTS ACI REGIONAL MEETING

Seattle will be host November 5-6 to the 10th Regional Meeting of the American Concrete Institute, with the 2-day program at the Benjamin Franklin Hotel emphasizing the latest concrete projects and techniques in the Northwest.

The technical program will include such subjects as concrete for radiation shielding, shear walls, plastic flow characteristics of lightweight aggregate concrete, and reinforced masonry construction. Other papers will report on warping due to shrinkage, prestressing cylindrical shells, perstressed lift-slabs, precast colored panels, and precast and prestressed construction.

Among the speakers scheduled to appear are: Jack R. Benjamin and Harry A. Williams of Stanford University; J. T. McClellan of Oregon State College; Verne Frese of Seattle; Alfred L. Miller of the University of Washington; John B. Skilling and John V. Christeansen, structural engineers of Seattle; Edward K. Rice of Los Angeles; Otto Buehner of Salt Lake City; Arthur R. Anderson of Tacoma; Alfred T. Waidelich of Cleveland, and Norman D. Lea of Vancouver, B. C.

## McGUIRE WILL WELCOME NCS TO SAN FRANCISCO

T. G. McGuire, president of the Industrial Indemnity Company, San Francisco, will welcome delegates to the 8th National Conference on Standards when they meet in San Francisco on November 13. The first session will be devoted to the 39th Annual Meeting of the American Standards Association which will be holding a three-day conference at the St. Francis Hotel at the same time.

Many speakers will discuss various aspects of Government and industry use of standards, standards for control of exposure for ionizing radiation, cost improvement, standardization for companys, industrial standardization for defense, construction specifications, and other work of the American Standards Association.

## EARL PENNINGTON NAMED BY DOUGLAS FIR PLYWOOD ASS'N

The Douglas Fir Plywood Association recently announced the staffing of a new regional office in California, to be located in San Francisco and under the direction of Earl Pennington, and serving Northern California and Nevada.

Pennington has been with DFPA in 1954 as a field representative. Prior to that he was advertising and merchandising manager for the Merner Lumber Company in Palo Alto.

## JOSEPH K. ALLEN WITH UTAH CONSTRUCTION CO.

Joseph K. Allen has been named manager of Utah Construction Company's South San Francisco real estate and development division, according to an announcement by Allen D. Christensen, president and general manager.

Allen, who has been assistant to Christensen, will head up development of the company's $50,000,000 South San Francisco Industrial Park and other property in the area. He will be succeeded as assistant to the president by Michael P. W. Stone of San Francisco.

## GENERAL ELECTRIC CONSOLIDATES PLANT

Consolidation of sales headquarters for alkyd resins and polyester resins, with manufacturing facilities in Anaheim, California, have been announced by J. L. Galt, general manager of the west coast section of General Electric Company's chemical materials department.

The company also anounced establishment of a San Francisco sales office in charge of R. M. Kavish.

## BASALT ROCK CO. APPOINTS TOBIN

James Tobin has been appointed manager of the Structural Concrete Products Division of the Basalt Rock Company, Inc. of Napa, California, according to a recent announcement.

At the same time the firm announced that Don McCall, Chief Engineer, and Ray McCann, Assistant, will direct all design and technical information, with Jack Streblow heading the company's sales. Ross Rudolf will continue as technical sales representative for the division.

## US STEEL'S MODEL HOUSE OPENS

The newest completely architect designed house to be manufactured by United States Steel Homes Division of U.S. Steel Corp., the "Steelaire-Fifth Avenue," was opened to public inspection in Pittsburgh, Pa., late last month.

The home, built on the roof of Kaufmann's Department Store, represents the cooperative efforts of four of the country's top architects: A. Quincy Jones and Frederick E. Emmons of Los Angeles; Robert A. Little of Cleveland; and Rufus Nims of Miami. The compositely designed home represents the best features of American design and is a cross section of architectural thinking which embraces the entire nation.

A mechandising hall, adjacent to the roof, offers information on the new home, and dramatically shows home components and details of the construction and design.

## FOUNDATION ENGINEERS SOLVE VEXING PROBLEM

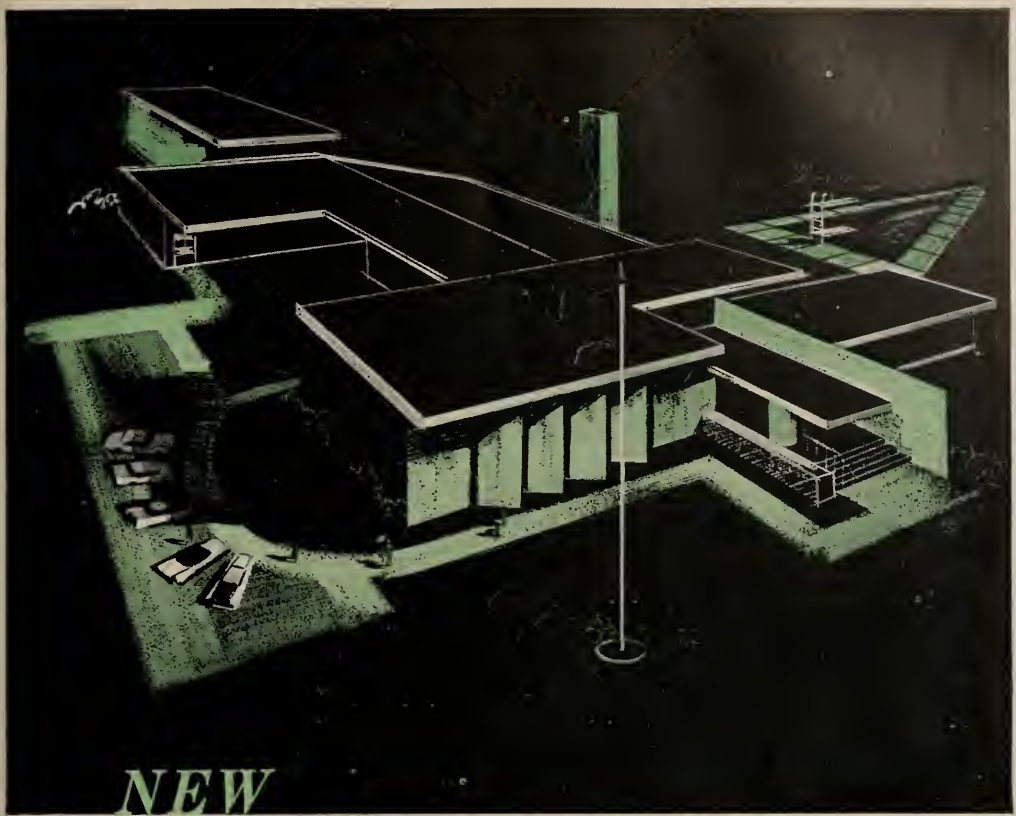
Woodward, Clyde & Associates, Engineers, of Oakland, devised a relatively inexpensive solution to a critical soils problem in connection with construction of the one-story, 80,000 sq.ft. warehouse building of the Coffin-Redington drug supply firm, in South San Francisco.

Some portions of the tideland site was underlain by as much as 30 feet of bay mud, in order to save time, the engineers recommended this mud be surcharged, that is, pre-loaded by placing additional fill in areas of deepest mud. This fill, greater than the weight of the building, accelerated settling and was removed before actual construction began.

In order to reduce the possibility of plastic flow of mud and keep the mud waves from exerting excessive horizontal stresses on 50-60, pile supported, nearby power towers, a uniform mat of fill was floated around the towers.

Warehouse construction is tilt-up concrete with steel columns and tapered steel beams and glued plywood roof.

**ATOMIC REACTOR,** Vallecitos Laboratory, (near Pleasanton) Alameda county. General Electric Company, owner. Installation consists of 4-structures; a cylindrical steel container, 66 ft. in diameter and 104 ft. high; office facilities, and control buildings and water cooling towers — $4,000,000. DESIGNER. Ralph M. Parsons Co., 617 S. Olive St., Los Angeles. GENERAL CONTRACTOR: Ralph M. Parsons Co., 617 S. Olive St., Los Angeles.

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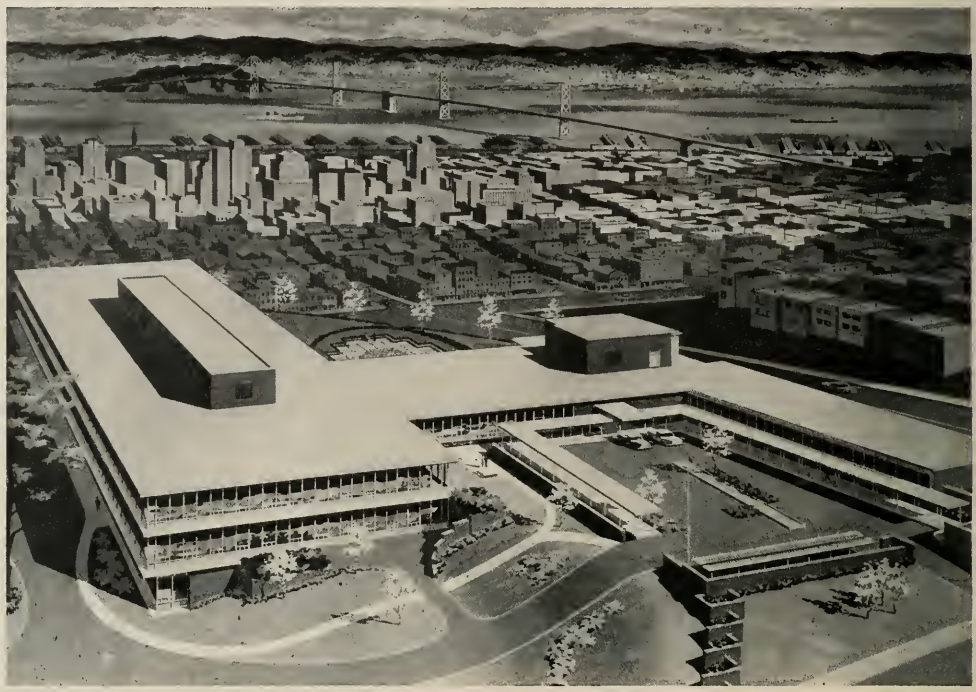

**The design and construction of the Fireman's Fund Home Office building offered important challenges to all who were concerned with making it a reality. To have played a part in finding the answers to these challenges ... to have worked with such able associates to make this dream of a magnificent building come true have been rare privileges!**

Architect: Edward B. Page, A.I.A.
Structural Engineers: John J. Gould and Henry J. Degenkolb
Mechanical Engineer: R. Rolleston West
Electrical Engineer: Clyde E. Bentley
Interior Designer and Consultant: Maurice Sands
Landscape Architects: Eckbo, Royston and Williams

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# New Fireman's Fund Building

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Electrical Engineer: CLYDE E. BENTLEY

Interior Designer and Consultant: MAURICE SANDS

Landscape Architect: ECKBO, ROYSTROM & WILLIAMS

General Contractors: MacDONALD, YOUNG & NELSON

**ENTRANCE is simple in design, opens onto the large court on Laurel Street—250 car parking area adjacent to California Street wing of the building.**

# FIREMAN'S FUND BUILDING . . .

**EXECUTIVE OFFICE**

**Carpeted in two-tone teak brown, the entire Executive area adjoining Laurel Court is planned around variations of grayed blue-green, lacquer red and gold with neutral chamois-color walls and walnut furnishings.**

**By GRAEME K. MacDONALD, President**
**MacDonald, Young and Nelson, Inc.**
**General Contractors**

When the Fireman's Fund Insurance Companies decided to erect a new headquarters, they were determined that the new structure would be the finest and most efficient possible for the conduct of the firm's business and the welfare of its staff. Such ambitious requirements posed important challenges in the design and construction of the building. The result is that the building incorporates many new techniques and ideas.

One vital requirement was, that the main building should have the largest possible un-interrupted floor and working area—an important consideration in the operation of a major insurance firm's Home Office. Likewise, particular attention had to be given to providing the greatest amount of daylight and other factors conductive to excellent working conditions for the Home Office staff of nearly 1,000 employees.

As a result of these and other requirements, the

**EXECUTIVE WING is treated with fissured mineral tile to match the luxuriant appearance of surroundings. Light fixtures and air diffusers are recessed in pattern with the acoustical tile.**

**WORK AREA,**
**EXECUTIVE WING**

**Furniture is finished in warm suede brown accented by bronze gold anodized aluminum trim, features modemaker style desks and posture chairs.**

project's Architects and Engineers evolved a type of cantilevered construction which has been described as a "significant innovation in the commercial building field." This method made it possible to provide a 40-foot span from the core of the building to a series of support columns with an additional 15-foot cantilever to the outside wall of the building, plus a large overhang. This outside wall is actually a "curtain wall" composed entirely of windows, since the weight of the ceiling is borne by the series of columns.

## UNIQUE CONSTRUCTION METHOD USED

Since the maximum utilization of inside space, with the least possible interruption, was regarded as vital, the bearing columns had to have high loading for their size. But, there was a problem: suitable solid steel beams to handle this load were not available as a practical matter. To solve this problem, a method of

**CLASSROOM**

**One of two such areas, is equipped with sound projection equipment, blackboards and display facilities for use of Educational Department.**

**Completely air conditioned.**

**ACCOUNTING DEPARTMENT**

**Centered on Terrace Level of California Street wing . . . glare-free light and surrounded by easy on the eyes color scheme.**

construction was adopted which is, as far as we know, unique. Instead of solid steel beams, we built up these support columns from laminated steel plates held together by massive high strength bolts, thus achieving the effect of a solid mass of steel measuring eight inches on one side by eight to twelve inches (depending on the requirements for a specific column) on the other.

The net result of this construction method was that it was possible to have the columns' finished dimensions (after the plaster was applied) of no more than 12 inches on one side and from 12 to 20 inches on the other — far smaller than would have been required by conventional methods. The effect in these large room areas is one of extreme lightness and open-ness.

The core of the building, at which one end of the floor is anchored, takes care of any horizontal load. The concrete core, in a three-level section, was heavily reinforced with 14-inch walls. The girders are of reinforced concrete at 30 foot intervals. The structural framing between the girders is by reinforced concrete joists on 35½ inch centers.

The construction features just described apply to the three-story-high California Street wing of the building which, because it is the largest, is usually referred to as the "main building," but is properly referred to as the "California Avenue Wing." However, the building also has a center section, referred to as the "Laurel Street Wing," and on the South end, the "Euclid Avenue Wing." These two wings are two stories high.

Although these two latter wings are important parts of the entire building, they posed no particular problems from the standpoints of design or construction. Like the rest of the building, these wings are built of reinforced steel and concrete. The entire building has a uniform appearance.

Another structural innovation was the burying of

**EMPLOYEES'**

**CAFETERIA**

**Colorful, clean, pleasant cafeteria— aluminum chairs and tables; upholstered chairs in pale yellow plastic and raspberry plastic.**

**MODEL AGENCY OFFICE**

**Park Level**

**Semi-permanent display of typical insurance agency office illustrates vividly equipment and furniture installation.**

*Photo Courtesy*
*General Fireproofing Co.*

Walker Ducts for electrical conduits in 4½ inch structural concrete floor slab. This differs from ordinary procedure in that normal non-structural concrete fill was eliminated.

## BUILDING EXTERIOR ALL WINDOWS

The exterior of the building is glass with aluminum window casings. Nearly an acre of glass was required for the floor-to-ceiling exterior of the structure. The spandrels on the lower part of each window are a heat-strengthened glass with ceramic color fused on. As a result, the building has no wood or other surfaces requiring painting. The only exterior upkeep required is washing windows—a job which is facilitated by the wide flat roof overhang which serves as a working platform.

The three-level main portion of the building covers

**PARK**

**LEVEL**

**Combined overhead lighting and natural daylight at a side of this modern office area offers a perfect combination for automatic machine operators.**

*Photo Courtesy*
*General Fireproofing Co.*

**TABULATION ROOM ON PARK LEVEL**

**Illustrates portion of automatic tabulating machines which are in constant use . . . room is lined with tabulating card files. Overhead lighting, ventilating and air conditioning.**

*Photo Courtesy*
*General Fireproofing Co.*

**NEWLY DESIGNED**
**"Point of Service" storage**

300 by 144 feet—the size of a football field. It is laid out in such a way that most employees are within 40 feet of an outside window.

The entire building provides 195,000 square feet. It has been estimated that, if the building were on an average 100 foot square downtown lot, it would have to be 20 stories high and would have cost another million dollars to build.

The building has been planned for an expansion factor of 30 per cent. Future needs will be satisfied by adding a complete floor above the present floors, or by adding wings.

## BUILDING TAKES SMALL PART OF LAND AREA

Actually, the building takes only a minor fraction of

**COURT LEVEL**

**Illustrates the spaciousness of the general office area. Indirect lighting together with the modern office equipment and file system contribute to comfort of employees.**

*Photo Courtesy*
*General Fire Proofing Co.*

**POPULAR BRICK**

**Some 500,000 bricks were used in the grouted brick masonry wall and building trim.**

*Photo Courtesy United Materials and Richmond Brick Co.*

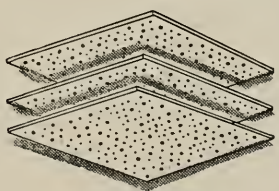
the property's 10.2 acres. The building itself occupies 1.74 acres, and there are 2.75 acres of off-street parking for more than 250 cars. On the rest of the land area, a truly superb job of landscaping has been done. This includes 110 varieties of trees, plants and ground cover that give the area surrounding the building a park-like aspect.

The entire building is completely air-conditioned,

**BRICK MASONS doing their part in constructing this modern building.**

*Photo Courtesy, George W. Reed & Co.*

**It has been our pleasure to install the acoustical portion for MacDonald, Young & Nelson in Fireman's Fund Insurance Co.'s new home office bldg.**



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| SACRAMENTO—3026 V St. | GL 7-3505 |
| PORTLAND—1732 S.W. Harbor Drive | CA 2-1049 |

**ROOF FILL**

**Preparation of final roof construction included a large quantity of a soft concrete roof fill.**

*Photo Courtesy Fraser-Edwards Co.*

and the indoor climate is controlled by two boilers and two large cooling units. A low-level, high fidelity sound system has been installed for music and occasional special announcements. Nearly 600 speakers are set above the louvered metal "ceiling."

In the core of the California Street Wing, there are three fully automatic elevators. The Euclid Avenue Wing has one hydraulic elevator.

A few figures indicate the size of the new Fireman's Fund headquarters. The equivalent of 50 freight car loads of steel—1,500 tons—were used. A total of 70 miles of copper were needed to bring power for lights and equipment to every corner of the building. The new furniture for the building filled 45 freight cars when it was shipped by the manufacturer. More than 500,000 bricks went into the grouted brick masonry wall and building trim.

## ALL-AROUND CO-OPERATION RESULTED IN A SMOOTH, SWIFT PROJECT

Ground was broken on the project in August, 1955. The building was completed in early June and occupied on June 17, 1957.

It would be difficult to imagine a construction project which, as a practical matter, could have gone


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*Photo Courtesy Regal Roofing Co.*

more smoothly, and with more pleasant relationships all around, than the Fireman's Fund Headquarters Building. The outside success of the building and the notable innovations in its structure, were the result of an "all hands" effort. Obviously, it was a pleasure to work with, and for, the management personnel of Fireman's Fund. It was a particular privilege, also, to be associated with such people and firms as:

Edward B. Page, A.I.A., the Architect
John J. Gould and Henry J. Degenkolb, Structural Engineers
R. Rolleston West, Mechanical Engineer
Clyde E. Bentley, Electrical Engineer
Maurice Sands, Interior Designer and Consultant
Eckbo, Royston and Williams, Landscape Architects

And, last but not least, I would like to give credit, also, to all the personnel of MacDonald, Young and Nelson, who, from top to bottom, played important roles in doing a fine job in which we all take immense pride!

*It has been a pleasure working with*

MacDONALD, YOUNG & NELSON
*General Contractor*
on the new Fireman's Fund Bldg.

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# SHEPARD CADILLAC

BERKELEY, CALIFORNIA

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HAMMARBERG and HERMAN

General Contractors:
F. P. LATHROP CONSTRUCTION CO.

Structural Engineers:
BRYAN and MURPHY

Mechanical Engineer:
SANFORD FOX

Electrical Engineer:
CHARLES WILLIAMS

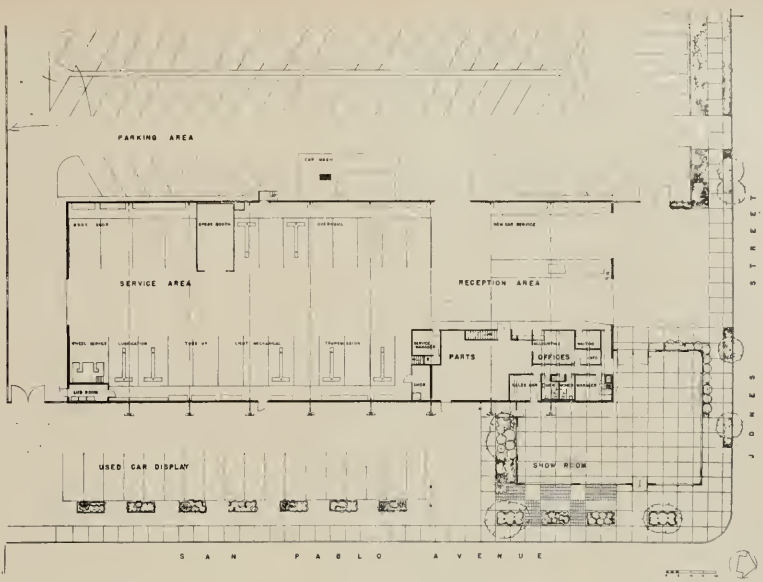
Landscape Architects:
OSMUNDSON and STALEY

**SITE PLAN**

**Showing new building and adjacent Used Car display, car wash and customer parking area.**

**Opposite Page**

**Pictures the San Pablo Ave. view.**




Breaking a well established tradition of automobile sales and service firms in locating their business activities close to competition, the Shepard Cadillac Company chose to build their new, modern building on San Pablo Avenue in Berkeley, a main commercial artery which connects most of the primary cities on the East Shore of San Francisco Bay in Alameda county.

Located for many years in the 2600 block on Oxford street, the Shepard Company was obligated to seek new facilities for their new car sales, used car activities, and customer services, when expansion of the University of California resulted in the University acquiring the site for construction of a new Administrative building.

The new San Pablo Avenue facility has been acclaimed by many experts in the automotive industry to be one of the most efficient buildings of its type in the country. It represents, according to consensus, superlative architectural design, engineering, and landscaping for client programming, and maximum fulfillment of a desire to produce a public-use facility as progressively designed and acceptable as the product

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**SHOWROOM INTERIOR**

**Unique glass ceiling with steel cross members combines with the glass and brick walls to make friendly appeal.**

the company sells.

The building is comprised of two distinct and separately functioning elements: the new car Show Room, with the associated sales staff facilities and the general administrative and executive offices; and the Service-Reception Area which is devoted to general and public customer use.

The Show Room has been assembled with the two most basic materials associated with automotive design, steel and glass, handled with a great stress on strict geometry—a geometry which is also expressed throughout its luminous ceiling. The contrast offered between the rigid modular show case and the moulded steel product within it, is a great but pleasing one.

Adjoining and flowing through the Show Room is the Service-Reception element, made up of a basic steel frame curtained with an integral colored non-precision masonry sheathing. The space was spanned with structurally efficient tapered steel beams, which support prefabricated roof sections. Quite obviously the functional working of the Service Area is the key to overall success of an organization of this type, and


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**ENTRANCE to Reception-Office Area**

**DETAIL, Showroom Exterior**

fully realizing this, very early and careful planning by the Architects', Engineering Consultants guided by the Shepard Cadillac Company's own technical staff, was carried out. Results of this effort have produced what is felt to be most successful.

Having had no space for the display of used cars at the original building, it was decided very early that with the available area on the new site, this important function of motor car dealer business would be incorporated. Instead of the usual obscure display relationship between new and used cars, great emphasis was placed on their common exhibition, the only separation being the transparent show case. Not only providing interesting pattern to the masonry curtain wall and overall building lighting, the cantilevered lighting outriggers provide an interesting evening


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### ADDISON HAWLEY, JR. GETS NEW GLADDING, McBEAN APPOINTMENT

The appointment of Addison Hawley, Jr., to the newly created position of assistant general manager, Architectural Division, Gladding, McBean & Co., has been announced by the divisional vice-president, Verne W. Boget.

ADDISON HAWLEY, JR.
Is Promoted

Hawley joined Gladding, McBean & Co., in 1946 as a sales trainee in the refractories division, and held various technical and supervisory positions of increasing responsibility in Refractories and Pipe Products Divisions, before transferring to the Hermosa Tile Plant as superintendent in 1952. In 1954, he was appointed General Superintendent of the Hermosa Tile Plant and in 1955 was promoted to Tile Production Manager.

In his new position, Hawley will be responsible for the manufacture of tile products and the sale and distribution of tile and masonry products to all areas except those served by Gladding, McBean & Co., Pacific Northwest Division.

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BAY AREA

# TRANSIT PROGRESS

PART II

By GEORGE S. HILL
Consulting Engineer

In the 1931 report of M. M. O'Shaughnessy, City Engineer, he states: "The conditions west of First Street are not at all unfavorable to the construction by the fill and cover method. This portion of Market Street is all sand on top of clay. The material to be gone through will call for heavy lagging and shoring, but presents no unusual or alarming difficulties. A decking of heavy planks is laid on steel beams supported on posts. This will carry the surface traffic while the subway space beneath is being excavated." This method was successfully used in Toronto. East of First Street the shield-driven compressed air method would be applicable.

### COORDINATION WITH LOCAL SYSTEM

By adopting in principle, the Optimum Plan or its modifications, San Francisco will then know how to proceed in planning its own local system. Previous

concepts will require considerable readjustment to fit the new conditions. Short turning loops were frowned upon by Robert Ridgeway, Chief Engineer of the New York subways as unnecessary and expensive. The science of automatic control and signal systems is such that so-called "flexing" of subways is now no more necessary than they would be for surface operation. Equipment for local use should be of the type which could be used in subways. For fast loading and unloading, raised platforms are necessary. The municipal railway should be so planned that it will be auxiliary to its own rapid transit system and also to the Bay Area system.

The rapid transit system should be planned in advance of freeway construction because of its greater capacity for its size and to avoid interference. One purpose of a rapid transit system is to reduce the need for so many freeways. It is an economic waste to use valuable central business property merely for the storage of cars and for freeways. Rapid transit is safer and does not take so much property off the tax rolls. The use of stations along Market Street will provide the only practical means of interchange between interurban rapid transit and future grade-separated local transit in San Francisco. With mezzanine concourses at the stations and with six to eight feet of cover for utilities, a Market Street subway can be designed to permit underpasses at several points, for example Seventh Street. Cities rarely construct subways until they have attained a population of at least a million, and only in a metropolitan sense has San Francisco attained that size. Nevertheless, the unique street pattern here, in which so much of the traffic and transit are on Market Street, makes it evident that a Market Street subway is now justified. We have here an ideal arrangement for an "elongated terminal" frequently advocated to avoid the congestion which would result from a single stub terminal at the business center. The Optimum Plan makes effective use of this principle, and recommends two main stations under Market Street, one at Powell Street and one at the Civic Center. With the municipal railway facing a yearly deficit it is evident that a subway for local use only would not be self supporting under present conditions.

As there is doubt as to adequacy of two tracks under Market Street for the Bay Area system, it might be wise to consider making a four-track subway a part of the Bay Area system under the first step, and deferring other local rapid transit construction for later consideration. Two tracks would extend out Market Street for the tunnel lines and two tracks would turn south through the Mission District. Although comprehensive plans should be made it would be advisable not to attempt too much for the first

(See page 32)


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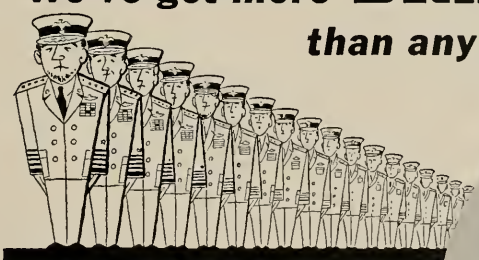

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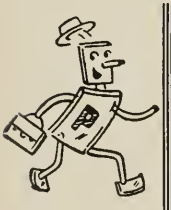

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## CALIFORNIA COUNCIL'S 12th ANNUAL CONVENTION READY

Final details of the professional and entertainment program for the California Council of Architects 12th annual convention, Hotel del Coronado, October 2-6 have been announced by Wallace Bonsall, Convention Advisory Committee chairman.

William T. Sesnon, Jr., Los Angeles oil company executive and civic leader, will deliver the keynote address Thursday morning October 3rd on the subject "Community Planning and Development."

Speakers participating in the program and round-table discussions represent some of the outstanding architectural and engineering men throughout the nation. Entertainment scheduled includes a trip to Tijuana, Mexico, dancing and annual banquet.

## ARCHITECTS TO TOUR JAPAN

The second annual "Architect's Tour of Japan" will be conducted in October, according to Kenneth M. Nishimoto, A.I.A., Pasadena Chapter, who will lead the tour.

The itinerary is patterned after the successful 1956 tour, but this year the group will travel during the most colorful season in Japan. Architect Nishimoto will be assisted by English speaking guides who will accompany the architects throughout Japan.

Flying from San Francisco architects will spend a

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

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## ALLIED ARCHITECTURAL ORGANIZATIONS

San Francisco Architectural Club:
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Producers' Council—Southern California Chapter:
LeRoy Frandsen, President, Detroit Steel Products; Clay T. Snider, Vice-president, Minneapolis-Honeywell Regulator Co.; E. J. Lawson, Secretary, Aluminum Company of America; E. Phil Filsinger, Treasurer, Hermosa Tile Division, Gladding, McBean & Company. Office of the Secy., 1145 Wilshire Blvd., Los Angeles 17.

Producers' Council—Northern California Chapter:
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Construction Specifications Institute—Los Angeles:
R. R. Coghlan, Jr., President; George Lamb, Vice-President; Peter Vogel, Secretary; Harry L. Miller, Treasurer.

Construction Specifications Institute—San Francisco:
Harry McLain, President; Harry C. Collins, Vice-President; Albert E. Barnes, Treasurer; George E. Conley, Secretary. Office of Secy., 1245 Selby St., San Francisco 24.

---

day in Hawaii enroute and three weeks in Japan, touring the country and meeting Japanese architects.

Tour membership is open to all architects, their families and friends, but the number is limited. The tour will be managed by Japan Tours, Inc., San Francisco.

## WAL-PASADENA

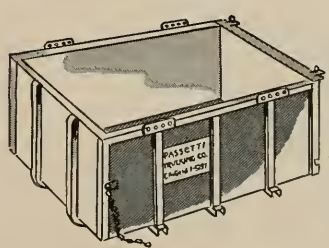
Dr. Shelby L. Dietrich, Pasadena School Physician discussed TV and newspaper propaganda regarding public health in a talk "What Public Health Means to You," following first hand view of the new home of Architect and Mrs. Boyd Georgi, Altadena, and recently featured in the Pasadena Star-News, daily newspaper.

New League members include: Mrs. Douglas Brown, Mrs. V. R. Bonini, Mrs. Jack Causey, Mrs. Donald Forker, Mrs. Lillian Grizzell, Mrs. Alvin H. Galpert, Mrs. Chauncey M. Lott, and Mrs. Burdett Pulver.

## INLAND BRANCH CHAPTER—L.A.

Amos Randall, architect of Pomona, was chosen head of the first District Chapter ever to be recognized by The American Institute of Architects. It will be known as the Inland District of the Southern California Chapter, AIA, and will include architects of Riverside, Pomona, Ontario, San Bernardino, Palm Springs, and Apple Valley.

Other officers elected to serve with Randall include Herman Ruhnau of Riverside and Robert Chambers of Palm Springs.

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American Society of Civil Engineers
Los Angeles Section

George E. Bramdow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa

## STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA ANNUAL MEETING

Plans for the 1957 Annual Convention of the Structural Engineers Association of California, to be held at the Hotel del Coronado, October 31-November 2, are nearing completion, according to George Guibert, Convention Chairman.

David Narver, Technical Program Committee Chairman, has keyed the technical program with two subjects of high interest to the engineering profession: "Tall Buildings" and "Concrete Structure Construction Costs."

A panel discussion on Thursday, October 31, will highlight "Tall Buildings" and the Los Angeles building code which is being prepared and will govern construction of unlimited height structures. Panel members will include: S. B. Barnes, moderator; Edward Lindskog, C. S. Glazbrook, Roy Johnston, M. J. Skinner, J. M. Steinbrugge, Murray Erick and R. W. Binder.

Concrete construction costs will highlight a panel discussion on Friday, November 1st. Members of the panel are: William T. Wright, partner, Kistner, Wright & Wright, moderator; Carl H. Wittenberg, partner, Twaits-Wittenberg; J. W. Bernard, general manager, William J. Moran Company; Noyes Roach, president, Noyes Roach Company; and Clair L. Peck, Jr., partner, C. L. Peck Construction Company & Realty.

An interesting entertainment program is also being prepared.

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## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

Professor Charles Massonnet of the University of Liege, Belgium, was the principal speaker at the September meeting in the Engineers' Club, San Francisco, discussing "Evaluation of Plastic Design of Steel Structures."

Prof. Massonet reviewed the basic concepts of plastic design; shakedown effects, and the possibility of premature collapse by local or general instability. Results of several Belgian tests were described.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—L.A.

"The Engineer's Role in the New Era" will be the subject of a paper at the October 9th meeting of the Los Angeles Section in the Rodger Young Auditorium, delivered by Major General Emmerson C. Itschner, Chief of Engineers, U. S. Army.

Barbara Counties Branch, Robert L. Ryum, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section

H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch

Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of
Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 121 So. Alvarado St., Los Angeles 57.

Structural Engineers Associatiton
of Oregon

Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)

R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District

H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy , c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military
Engineers—San Francisco Post

Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

## SOCIETY OF AMERICAN MILITARY ENGINEERS—San Francisco Post

Colonel John S. Harnett, District Engineer, San Francisco District, and Grant P. Gordon, vice-president, Guy F. Atkinson Company, San Francisco, discussed construction of the "Coyote Dam" project near Ukiah, California, at the September meeting of the Society in the Presidio Officers Club, San Francisco.

The Coyote Dam is located on the East Fork of the Russian River and is an earthfill structure with a crest length of 3,500 feet and will be 160 feet high above stream bed. Some 6,000,000 cu. yards of earth and rock will be moved by the contractors in construction.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

Earth Satellites was the subject of the September meeting in the Rodger Young Auditorium, Los Angeles, with Dr. Henry L. Richter, Jr., the principal speaker. As coordinator of Project ESP-27, a projected experimental system for scientific measurements from an earth satellite, the speaker described the U.S. earth satellite program, including mechanics, purposes and expected results. His talk was illustrated with slides.

## AMERICAN CONCRETE INSTITUTE PLANS S.C. CHAPTER

A committee of twenty-three men, representing a cross-section of engineers, builders, producers and users of concrete, concrete materials and concrete products, has been diligently at work in recent weeks in a new organizational effort of particular interest to the southern California area and its concrete construction industry.

Appointed by the Board of Direction of the American Concrete Institute at its February meeting, this group, the Southern California Chapter Committee of the Institute, is charged with the organization of the first official local or regional unit to be formed within the framework of the Institute in the 53 years of its history.

At the beginning of the present year the nation-wide membership of A.C.I. had reached the total of 8444, of which about 5% are located in the area served by the new Chapter. This area includes all of southern California to the north boundaries of San Luis Obispo, Kings, Tulare and Inyo counties.


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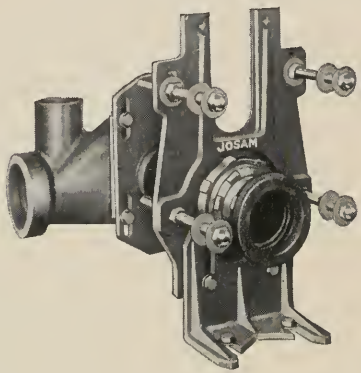


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## SHEPARD CADILLAC

(From page 23)

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Parking facilities for customers, for cars getting ready for service, for cars already serviced, for new cars and employee cars, was not overlooked in this facility. Described by James M. Roche, Vice-President of General Motors Corporation, as one of the most valuable assets of this building, the resulting 100 car parking area was one of the governing factors in the original selection of the property.

Keynotes for any efficient business are the comfort and convenience for both the customer and personnel. Integral lighting systems, air conditioning, and acoustic surfaces all add to this comfort in such facilities as the accounting room, waiting room, executive offices, conference room and staff lounge. Not shown on the plan is the large bulk parts storage area which is over the entire office and parts area. Parts transfered to this area are handled with the use of electric hoist and monorail.

*PICTURE CREDITS: Cover San Francisco Chamber of Commerce, also page 11, 12, 13, 14, 15, 16, 17, 18, 19; Al Silveria Photo's, page 11, 12, 13 (bottom) 14 (top) 17, 18; Moulin Studio's, page 13, (top), 14 (bottom), 15, 16, 19; General Fireproofing Co., page 12, 13, 14, 15, 16; United Materials & Richmond Brick Co., page 17 (top); George W. Reed & Co., page 17 (bottom); Fraser-Edwards Co., page 18; Regal Roofing Co., page 19; and Phil Fein Photographer page 20, 22, 23.*


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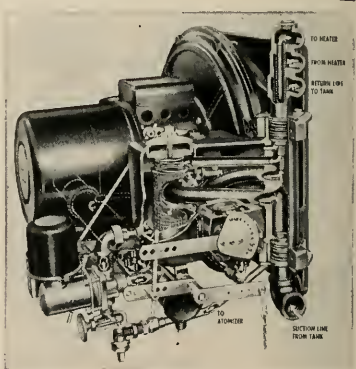

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## BERGFELD SELLS FRESNO SHOPPING CENTER

The Pacific Mutual Life Insurance Company, Fresno, recently announced the purchase of Chester A. Bergfeld's entire interest in the Manchester Shopping Center, according to Thomas L. Lowe, company vice-president.

The $15,000,000 purchase includes all land and buildings of the area except that portion owned and occupied by Sears, Roebuck and Company, and comprises 23 retail stores and 1,382,864 sq.ft. of land.

## KAISER CENTER WORK STARTS

"This is how we are going to do it!" says Dallas (Pete) Young, partner of Mac Donald, Young and Nelson Inc., to his job foreman Axel Hallberg during early stages of mammoth excavation job for the future Kaiser Center being built in Oakland.

YOUNG (left) & HALLBERG

The several month-long project, which will dig the largest hole ever made in the East Bay area, will require taking out 130,000 cu. yards of dirt to a maximum depth of 40-feet. "MYN" Safety hats are a "must" protective headgear on all Mac Donald, Young and Nelson construction projects.

## WOODWORK INSTITUTE MANUAL OF WOODWORK

The 1957 Edition of the Manual of Millwork, compiled and published by the Woodwork Institute of California, is being distributed to architects throughout California.

First published in 1953, it was intended to establish complete standards for the production of architectural woodwork and to provide a ready means for specifying materials and workmanship within that field. More than 3500 copies have been distributed to date to the architectural profession.

The new edition has completely revised the text and represents today's most modern approach to the woodwork industry.

## ARCHITECTS FORM NEW ASSOCIATION

Architect Lewis H. Hurlbut has announced an association with Ryan and Lee, Architects, and will conduct an office for the general practice of architecure at 305 Grant Avenue, San Francisco.

## ARCHITECT WANTED FOR LOS ANGELES

The Bureau of Public Buildings, Los Angeles, is seeking a Principal Architect to head its Design Division and is willing to pay $889 to $1,107 per month, according to Joseph W. Hawthorne, General Manager of the Civil Service Commission.

This responsible administrative and architectural position requires three years of professional experience in charge of the design of major commercial or industrial buildings, including general supervision and coordinating of the writing of specifications and all phases of engineering and inspection involved in the construction of large buildings.

The position also offers civil service benefits including promotion.

## SOULE STEEL APPOINTS ELMBURG CHIEF ENGINEER

L. M. Elmburg has been appointed Chief Engineer for all Soule Steel Company products according to an announcement by Edward L. Soule, Jr., president.

Elmburg's new duties include supervision of all engineering phases of the company's operations. He will direct engineering on Soule buildings and on Soule aluminum and steel windows, metal lath and other steel building products.

He formerly served the firm as Los Angeles district engineer and assistant sales manager.

## ARCHITECT IN NEW OFFICES

The architectural firm of Jack A. Edson, AIA, architect, Medford, Oregon, has announced the removal of their offices to new quarters at 44 North Front, Medford, Oregon.


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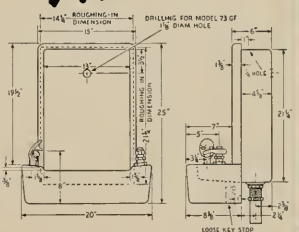

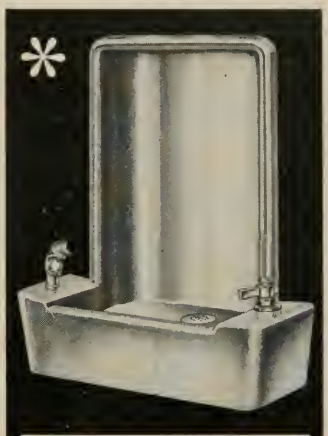

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## BAY AREA TRANSIT PROGRESS

(From page 25)

step. To advocate two separate bond elections would doubtless result in defeat of both measures.

The Arnold report on transportation facilities for San Francisco stated in 1912 that it was then too early to contemplate the building of a comprehensive subway system for San Francisco only, owing to the comparative absence of very long hauls and especially if the tunnel and other transit improvement projects recommended were carried out. The Twin Peaks Tunnel is two miles long and its use as part of an alternative route to the county line would conform to the city's own plan for rapid transit. This would not only save money for the first stage of the Bay Area system but would also add several important load points, such as Stonestown, the State Teachers' College, and the business, residential, and recreational areas on both sides of the Twin Peaks. The construction of this line would make a Western Freeway unnecessary. It would complete a project long since overdue, as it is now an example of the effects of piecemeal development. The purpose of the Twin Peaks Tunnel was to provide rapid transit not only for the development of residential areas within San Francisco but also down the Peninsula into San Mateo County.

The east portal was purposely built "sub-grade" to facilitate extension of the tunnel-subway project down Market Street. Mr. Arnold was in favor of the immediate extension as far as Valencia Street and the location of an interurban station there. The construction of the Twin Peaks tunnel line could well be included in the Bay Area system even if the branch southward through the Mission District is deferred for a later stage. The DeLeuw Report of 1948 recommended a two-track rapid transit route along South Van Ness Avenue in the center of the proposed Mission Freeway to and beyond the city limits, following the old right-of-way of the Southern Pacific Company through Ocean View, with a station between Geneva and Ocean Avenues. In some respects this route is to be preferred to the route with elevated railways along Valencia Street and Alemany Boulevard, recommended in the Regional Rapid Transit Report. The center strip of Chicago's West Side Expressway is occupied by a rapid transit line which runs eight miles due west from the central business district.

(THE END)

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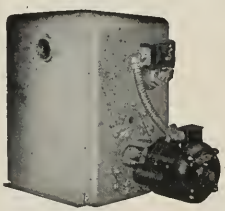

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### ULYSSES FLOYD RIBLE NAMED REGIONAL A.I.A. DIRECTOR

Ulysses Floyd Rible, F.A.I.A., Los Angeles, has been elected regional director of The American Institute of Architects, California-Hawaii-Nevada district.

Rible was elected to membership in the Southern California Chapter AIA in 1940, serving as chapter president in 1954, and last month was advanced to the rank of Fellow in the national organization.

In 1952, Rible served as president of the Economic Round Table, and during 1955-56 was president of the California State Board of Architectural Examiners.

Several of the buildings designed by Rible have won national architectural awards.

He is a member of the architectural firm of Allison & Rible, Los Angeles.

GERALD V. JACOBS, THOMAS D. WOSSER, JR., ROBERT L. MORRIS, and BURR H. RANDOLPH have successfully passed the Structural Engineers Examination given for licensing by the State of California in November, 1956.

# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

AUTOMATION: Its Purpose & Future. By Magnus Pyke, B. Sc., Ph.D. Philosophical Library, 15 East 40th St., New York 16, N. Y. Price $10.00.

The electric computer, a machine that can control other machines, was perfected in the 1940's. Its advent means that factory processes and office work alike can now be done almost entirely automatically. The Computer can co-ordinate the work of a series of manufacturing operations, it can fulfil the function of a human operator in a factory or a living accounts clerk in an office. Some of the new things that are already being done by automation are reviewed and the author is optimistic about the social effects of the new revolution in modern times.

BUILDING COST MANUAL. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. Price $15.00.

Prepared under the direction of the Joint Committee on Building Costs of the Chicago Chapter of The American Institute of Architects and The Appraisers Division of the Chicago Real Estate Board, this book provides an overall, up to date acquaintance with the costs of constructon of buildings of varying types. Every phase of building costs is described, detailed, and illustrated with photographs. Actual cost of the building is broken down by trades, then shown in relation to square foot and cubic foot costs. 150 different building types are covered. Comparisons are made with older types of buildings and replacement costs are considered. Appraisers, architects, attorneys, contractors, insurance adjusters and a host of other specialized activities will find this book well worth while.

MACHINERY AROUND YOUR COUNTRY HOME. By Herb Nichols. North Castle, Greenwich, Connecticut. Price $7.50.

Owners of suburban and country homes have become such substantial purchasers of mechanical equipment that a new industry has grown up to serve them. Home bulldozers, shovels, and trucks are involved in clearing land, grading, drainage, driveways and ground improvements. This book has been prepared to bring information about these machines to those who use them or their services. Includes data on purchase and rental, operating instructions and comparisons of most machines, from lawn mowers to bulldozers.

A HANDBOOK OF HARD METALS. By W. Dawihl. Philosophical Library, Inc., 15 E. 40th St., New York 16, N. Y. Price $10.00.

Hard metals derive their importance from the hardness of the carbides of metals with high melting points, which are their chief constituents. The first part of the book deals with the scientific principles of sintering in order to help an understanding of the production of hard metal in relation to other developments in the application of the sintering technique. The second part describes the technical production of hard metals. Reference is made in detail of the experimental methods and results of many other investigators in order to assist further development.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Manual of millwork-revision.** The 1957 edition of the Manual Of Millwork, intended to establish complete standards for the production of Architectural Woodwork and to provide a ready means for specifying materials and workmanship within that field, has been completely revised; grades for interior finish, exterior finish, doors, and casework clearly defined; elimination of lumber grade terminology in favor of grade definitions which pertain to millwork; complete directions for use. Write DEPT-A&E, Woodwork Institute of California, 1833 Broadway, Fresno, Calif.

**Time saving tips-for draftsman and engineer.** Shows 59-shortcuts to speed drafting and computation work; clearly written,


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**PLeasant 8-4196**

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well illustrated, shows new approaches to old problems; includes "Calculating Ideas," "Drafting Shortcuts," Engineering Data," and "Board Timesavers." Free copy write DEPT-A&E, Frederick Post Co., 3650 N. Avandale Ave., Chicago 18.

**Air engineering data file.** New 24-page air engineering data file (AIA File No. 30-D-1) covers engineering and test facilities for propellor fans, specifications, construction, maintenance, and installation; tables for estimating air-handling requirements, entrance and elbow losses and duct sizes; also specifications for special application equipment, i.e. propellors, coatings, and motors, corrosion-resistance and temperature guides, physical fan laws, terms and definitions. Free copy write DEPT-A&E, Aerovent Fan Co., Inc., Piqua 4, Ohio.

**Design manual**—Part II, Porcelain Enamel in Architecture, Curtain Wall Contruction. A new curtain wall manual (AIA File No. 17-A) is now available, 28-pages includes both black and white and color illustrations along with specific design data and technical information for architects, engineers and contractors. Free copy write DEPT-A&E, Porcelain Enamel Institute, Association Bldg., 1145 19th St., N. W. Washington, D. C.

**Hopper bin and stokers.** New, illustrated folder covers wide range of automatic air controlled hopper and bin feed model stokers for institutional, commercial, and industrial buildings; featured is Will-Burt's newly developed, low cost, enclosed coal conveyor that reverses electrically to reject obstructions or jammed fuel; complete dimension and capacity tables, and installation drawings. Free copy write DEPT-A&E, Will-Burt Co., Orrville, Ohio.

**Industrial plastic fabrications.** New plastics material guide featuring graphic examples of plastic fabrication methods with illustrations of the types of products best suited to each method; extensive chart, showing characteristics of tough, rigid thermo-plastics. Free copy write DEPT-A&E, L. A. Darling Co., Plastics Division, Coldwater, Michigan.

**Acoustical Engineers and Contractors.** A new catalog (AIA File No. 39-B) incorporating detailed information on "Acoustical Materials Association 1953 Bulletin," "How To Select an Acoustical Material," "Sprayed Limpet Asbestos," "Securitee Metal Suspension Systems," "Jackson Suspension System," and "Details of a new Incombustible Drywall Partition." Each of these are covered by photos, graphs, and descriptive text. Free copy write DEPT-A&E, L. D. Reeder Company, 1255 Sansome St., San Francisco.

**Neutron and Gamma Irradiation Facilities.** This 79 page book illustrates with 43 drawings, photographs, diagrams, and charts, provides a compact reference source on nuclear irradiation facilities in the United States; complied by Minuth and Martens of the Argonne National Laboratory; describes the forty irradiation facilities either operating now or expected to go into operation soon; 26 are nuclear reactors; 14 are gamma-ray facilities equipped with source of 3 kilocuries or more; book explains services that each facility provides and tells how to obtain them; representative cases are cited to illustrate costs of irradiation services. Write DEPT-A&E, Superintendent of Documents, U. S. Government Printing Office, Washington D. C. Price 60 cents.


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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 4% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$165.00 up (according to class of work).
Face Brick—Per 1 M laid—$250.00 and up (according to class of work).
Brick Steps—$2.00 lin. ft. & up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
"Bricketts" (Brick Veneer) per M, f.o.b. Niles, $50.00.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 x 12 Furring | $1.75 per sq. ft. |
| 4 x 6 x 12 Partition | 2.00 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.25 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.
Fire Brick—Per M—$165.00 to $185.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb | 5.05 |
| Asphalt roofing 15-lbs | 2.70 |
| Asphalt roofing, 30-lbs | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 3.80 |
| **Sand—** | | |
| Lapis (Nos. 2 & 4) | 3.75 | 4.50 |
| Olympia (Nos. 1 & 2) | 3.25 | 3.80 |

**Cement—**

Common (all brands, paper sacks). Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl ..... 4.14

Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.

Cash discount on L.C.L. ..... 2%

Trinity White, Medusa White ..... } 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.20
Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46½ | .46½ |
| 12x8x24-inches, each | — | .67 |

**Aggregates—Haydite or Basalite** Plant

| | |
|---|---|
| ¾-inch to ⅜-inch, per cu. yd | $5.85 — $7.75 |
| ⅜-inch to ¼-inch, per cu. yd | 5.85 — 7.75 |
| No. 6 to 0-inch, per cu. yd | 5.85 — 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $12.00 per square and up.
Hot coating work, $5.00 per square & up.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.

### ELECTRIC WIRING—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard materiel, such as rock will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.25 per sq. ft.
Terazzo Steps—$3.50 per lin. ft.
Mastic Wear Coat—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | ⅝x2¼ | ½x2 | ⅜x2 | ⅞x2 |
|---|---|---|---|---|
| Clear Qtd., White | $425 | $405 | $ | $ |
| Clear Qtd., Red | 405 | 380 | | |
| Select Qtd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ⅝ x 2¼ | 390.00 | 381.00 |
| ⅝ x 2¾ | 375.00 | 355.00 |
| ⅝ x 3¼ | 395.00 | 375.00 |
| ⅝ x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| ⅝ x 2¼ First Grade | $390.00 |
| ⅝ x 2¼ 2nd Grade | 365.00 |
| ⅝ x 2¼ 2nd & Btr. Grade | 375.00 |
| ⅝ x 2¼ 3rd Grade | 240.00 |
| ⅝ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ⅝ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |
| Floor Layer Wage $2.83 per hr. | |

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .45 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.60 per □ ft. |
| 75 to 100 | 1.74 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.50 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| | |
|---|---|
| **Furnaces—Gas Fired** | |
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| **Water Heaters—5-year guarantee** | |
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") Less than 1,000 □ ft. ..... $64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides. ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—1/4" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry. 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
1/4-inch, 4.0x8.0-S1S ..... $120.00
1/2-inch, 4.0x8.0-S1S ..... 160.00
3/4-inch, per M sq. ft. ..... 200.00
Plyform ..... 160.00

**Shingles** (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—1/2" to 3/4" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
3/4" to 1 1/4" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $8.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $35 per M to above
Creosoted, 8-lb. treatment ..... Add $45 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond, 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .90 |
| Three-coat work | per yard | 1.35 |
| Cold water painting | per yard | .45 |
| Whitewashing | per yard | .25 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| 1/2-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| 1/2-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

Price to Painters—Price Per 100 Pounds

| | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ | $ |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.75 lineal foot |
| 8-inch | 3.25 lineal foot |
| 10-inch | 4.10 lineal foot |
| 12-inch | 5.20 lineal foot |
| Installation | 75c to $1.50 lineal foot |

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—3/8"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4 1/2 in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square.. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7 1/2" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid
1/2 to 3/4 x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
3/4 to 1 1/4 x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .28
Standard, 6-in. ..... .51
Standard, 8-in. ..... .74
Standard, 12-in. ..... 1.61
Standard, 24-in. ..... 6.42
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvenized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless, (unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft.. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| 1/4-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| 3/8-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| 1/2-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| 5/8-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| 3/4-in. & 7/8-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.95 to $2.25 per sq. ft.
Cove Base—$1.50 per lin. ft.
Quarry Tile Floors, 6x6" with 6" base @ $1.60 per sq. ft.
Tile Wainscots & Floors, Residential, 4 1/4x4 1/4", @ $1.95 to $2.25 per sq. ft.
Tile Wainscots, Commercial Jobs, 4 1/4x4 1/4" Tile, @ $1.70 to $2.00 per sq. ft.
Asphalt Tile Floor 1/8" - 3/16" ..... $ .25 - $ .35 sq. ft. Light shades slightly higher.
Cork Tile—$.60 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each | $ .17 |

**Kraftile:** Per square foot
Patio Tile—Niles Red

| | |
|---|---|
| 12 x 12 x 7/8-inch, plain | $ .40 |
| 6 x 12 x 7/8-inch, plain | .43 |
| 6 x 6 x 7/8-inch, plain | .46 |

**Building Tile—**

| | |
|---|---|
| 8x5 1/2x12-inches, per M. | $139.50 |
| 6x5 1/2x12-inches, per M. | 105.00 |
| 4x5 1/2x12-inches, per M. | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M. | $146.75 |
| 12x12x3-inches, per M. | 156.85 |
| 12x12x4-inches, per M. | 177.10 |
| 12x12x6-inches, per M. | 235.30 |

F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
KAEMPER & BARRETT
San Francisco: 233 Industrial St., JU 6-6200
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL & AERIAL PHOTOGRAPHS**
FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
Face Brick
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
CALAVERAS CEMENT CO.
San Francisco: 315 Montgomery St.
DO 2-4224, Enterprise 1-2315
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER O. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRAFTING ROOM EQUIPMENT**
GENERAL FIREPROOFING CO.
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121
KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**FURNITURE—INSTITUTIONAL**

GENERAL FIREPROOFING CO.
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
LOUIS V. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco: 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
K-LATH CORP.
Alhambra: 909 So. Fremont St., Alhambra
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Shotwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
PATRICK J. RUANE
San Francisco: 44 San Jose Ave., MI 7-6414

**LIGHTING FIXTURES**

SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT OF NORTHERN CALIFORNIA
Berkeley: 2547-9th St., TH 1-3031
Enterprise 1-2204

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OFFICE EQUIPMENT**

GENERAL FIREPROOFING CO.
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
O. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PHOTOGRAPHS**

**Construction Progress**

FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

PLASTIC SALES & SERVICE
San Francisco: 409 Bryant St., DO 2-6433
WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHINERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**SPRINKLERS**
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
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San Francisco: 200 Bush St., YU 2-0200
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EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

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PASSETTI TRUCKING CO.
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**UNDERPINNING & SHORING**
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San Francisco: 1942 Folsom St., MA 1-1545

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Oakland: 384 Grand Ave., GL 2-0451

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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

*ATTENTION:* The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
**(Revised March, 1957)**

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**HILLSDALE SCHOOL,** San Jose, Santa Clara county. Franklin-McKinley School District, San Jose, owner. 1-story concrete foundation, concrete floors, wood and steel frame, composition roofing, plaster interior: 11-classrooms, 2-buildings, multi-purpose room, kitchens—$374,073. ARCHITECT: Kress, Goudie & Kress, 363 Park Ave., San Jose. GENERAL CONTRACTOR: McIlroy Const. Co., 1835 Alum Rock Rd., San Jose.

**CHURCH ADD'N,** San Rafael, Marin county. First Presbyterian Church of San Rafael, owner. Construction of addition 2 and 3-story wings, including basement, to present structure; stucco exterior, plaster interior, tar and gravel roofing, aluminum sash; facilities for a Social Hall and Classrooms—$128,407. ARCHITECT: R. Hammond, 530 35th St., San Rafael. GENERAL CONTRACTOR: Ralph E. Murphy & Son, P. O. Box 284, Kentfield.

**CONVENT,** Corpus Christi, San Francisco. Roman Catholic Archbishop of San Francisco, owner. 1-story wood frame and stucco, plaster interior, built-up flat roof deck, gravel top; 5000 sq. ft. area; facilities for 3-car garage, some demolition work—$109,233. ARCHITECT: Henry V. Chescoe, 33 Kearny St. San Francisco. GENERAL CONTRACTOR: Ira H. Larsen Inc., 64 South Park, San Francisco.

**JAIL ADD'N,** Redwood City, San Mateo county. County of San Mateo, owner. Penthouse addition to the jail portion of the County Courthouse, reinforced concrete and structural steel construction; 11,000 sq. ft. of area—$413,900. ARCHITECT: Michael Goodman, 2161 Shattuck Ave., Berkeley. GENERAL CONTRACTOR: Hub-Pacific Const., Co., 1020 Doyle St., Menlo Park.

**MEDICAL CENTER,** Walnut Creek, Contra Costa county. J. T. Lucas, Wanut Creek, owner. 1-story, wood frame construction Medical Center—$43,469. ARCHITECT: Aitken & Collin, 2102 Vine St., Berkeley. GENERAL CONTRACTOR: F. C. Kirkham, 1290 Walding Rd., Walnut Creek.

**WAR MEMORIAL BLDG.,** Guerneville, Sonoma county. County of Sonoma, Santa Rosa, owner. Remodeling of rear section of auditorium and addition of 2nd floor rooms—$56,386. ARCHITECT: J. Clarence Felciano, 4010 Montecito, Santa Rosa. GENERAL CONTRACTOR: E. L. Colombini, 608 Wright St. Santa Rosa.

**SWIMMING POOL & BATH HOUSE,** Riverside, Riverside county. City of Riverside, owner. Construction of a swimming pool and bath house in Hunt Park, Riverside; gunite pool of 4850 sq. ft. and bath house 2630 sq. ft.—$92,910. ARCHITECT: Clinton Marr, 3638 8th St., River-

side. GENERAL CONTRACTOR: Western-Alta Const. Co., 325 Ana Maria, Altadena.

**OFFICE BLDG,** Salinas, Monterey county. Growers-Shippers Vegetable Ass'n., Salinas, owner. 1-story reinforced concrete office building—$148,883. ARCHITECT: Elston & Cranston, 6th at Dolores, Carmel. GENERAL CONTRACTOR: Ekelin & Small, P. O. Box 8, Salinas.

**CHURCH REMODEL,** Terra Bella, Tulare county. Lutheran Church of Terra Bella, owner. Remodel and rebuild present church facilities—$57,272. ARCHITECT: James P. Lockett, Bank of America Bldg., Visalia. GENERAL CONTRACTOR: R. Hodgson & Sons, 1300 Sunnyside Ave., Porterville.

**AUTO REPAIR GARAGE,** North Hollywood, Los Angeles county. Nick De Carlo, North Hollywood, owner. Concrete block auto repair garage, composition roof, concrete slab, tapered steel girders, brick veneer, skylights, toilets, plate glass, overhead doors; 35x77 ft. of area. ENGINEER: H. L. Standefer, Consulting Engineer, 4344 Laurel Canyon Blvd., Studio City.

**CHURCH & SUNDAY SCHOOL,** El Cerrito, Contra Costa county. Northminister Presbyterian Church, Richmond, owner. 1-story frame and stucco construction —$87,458. ARCHITECT: Donald L. Hardison, 225 Broadway, Richmond. GENERAL CONTRACTOR: Carl C. Overaa Const. Co., 520 16th St., Richmond.

**MEDICAL CENTER,** Fresno. Dr. P. Wilson Matlock, Fresno, owner. Office suites for 9 doctors, 1-story frame and stucco construction, acoustical tile, plaster walls, gravel roof, hardwood panels, air conditioning and heating, concrete floors, off-street parking; 10,500 sq.ft. in building —$225,000. GENERAL CONTRACTOR: Taylor-Wheeler Associates, 245 Clinton St., Fresno.


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**ELEMENTARY SCHOOL,** Nicholas, Sacramento. Pacific School District, Sacramento, owner. Some site work and construction of facilities for administration offices, 5-classrooms, storage room, kindergarten heater room, toilet rooms—$132,628. ARCHITECT: Koblik & Fisher, 2203 13th St., Sacramento. GENERAL CONTRACTOR: United Const. Co., 3839 Riverside Blvd., Sacramento.

**MACHINE SHOP & OFFICE,** Los Angeles. Airheart Products Inc., Los Angeles, owner. Brick masonry machine shop and office; 10,000 sq.ft. area, tapered steel girders, composition roofing, concrete slab, plaster partitions, insulation roll-up doors, air conditioning, plumbing, electrical, metal toilet partitions, ceramic tile, louver windows and asphalt paving. ENGINEER: F. O. Reyenga, 4707 6th Ave., Los Angeles. GENERAL CONTRACTOR: R. A. Watt Const. Co., 7862 S. Western Ave., Los Angeles.

**SOCIAL HALL ADD'N,** Menlo Park, San Mateo county. Peninsula Voluteers tion, Menlo Park. 1-story frame construction, built-up roofing, wood floors and asphalt tile; 2800 sq.ft. area; facilities for conference rooms, classrooms, craft and loom room, lounge, and lecture rooms—$39,700. ARCHITECT: Kingsford Jones, 615 Meno Ave., Menlo Park. CONTRACTORS: Arthur Bros., 29 Vista Ave., San Mateo.

**FLOWER SHOP,** Visalia, Tulare county. Condit's Flower Shop, Visalia, owner. Contract has been awarded in an amount of $39,900. ARCHITECT: Richard P. Clark, Bank of America Bldg., Visalia. GENERAL CONTRACTORS: Guy Munson, 275 W. Tulare St., Visalia.

**FLIGHT ENGINE TEST FACILITY,** National Reactor Testing Station, Idaho Falls, Idaho. Atomic Energy Commission, Idaho Falls, owner. Test building, shielded control and equipment building, 4-rail dolly trackage, utilities and supporting facilities—$6,044,695. ENGINEERS: Ralph M. Parsons Co., 617 S. Olive St., Los Angeles. GENERAL CONTRACTOR: Howard S. Wright Const. Co., S. Birch and Sons and D. L. Cheney (joint venture) 414 Pontius, Seattle, Wash.

**ELEMENTARY SCHOOL ADD'N,** Kings Beach, Placer county. Tahoe-Truckee Unified School Dist., Auburn, owner. 1-story concrete block and steel const.; 4-classrooms, and locker room—$111,232. ARCHITECT: Gordon Stafford, 1024½ J St., Sacramento. GENERAL CONTRACTOR: H. J. Harlow & Sons, 5411 J St., Sacramento.

**SCHOOL & CONVENT,** St. Felicitas, San Lorenzo, Alameda county. Roman Catholic Archbishop of San Francisco, San Francisco, owner. Wood frame and stucco construction, built-up roof, dry wall interior, concrete slab floors, forced air heating — $188,430. ARCHITECT: George Steuer, 705 Maud St., San Leandro. GENERAL CONTRACTOR: Anthony Morsilli, 80060 Crescent Ave., Hayward.

**STORE,** Duarte, Los Angeles county. Thomas Shaheen, Jr., Duarte, owner. 1-story three unit, wood and frame, cement plaster, composition roofing, steel sash, plate glass, concrete slab and asphalt tile covered floors, acoustic ceiling, slimline lighting, toilet rooms, plumbing, electrical, air conditioning; 61x90 ft. ENGINEER: Santochi & Breinin, Architect and Engineers, 132 W. 1st St., Los Angeles. GENERAL CONTRACTOR: Eastern Builders, 1608 E. Compton Blvd., Compton.

**SWIMMING POOL & FILTER HOUSE,** Gilroy, Santa Clara county. City of Gilroy, owner. Construction of two new swimming pools and filter houses to be used jointly by the City and high school district — $58,000. ARCHITECT: L. F. Richards, 1033 Jackson St., Santa Clara. GENERAL CONTRACTOR: Atlas Pools, Inc., 3301 Mt. Diablo Blvd. Lafayette.

**FIRE HOUSE,** San Bruno, San Mateo county. City of San Bruno, owner. Concrete block and some wood; small day room, office, dormitory, lockers and toilets; provision for adjacent outside Park with public toilets — $28,451. ARCHITECT: Sharps & Brown, 2301 El Camino Real, San Mateo. GENERAL CONTRACTOR: Harvis Const. Co., 405 Grand Ave., South San Francisco.

**HIGH SCHOOL ADD'N,** Clovis, Fresno county. Clovis Union High School, Clovis, owner. Wood, frame, and stucco construction, cafeteria structural steel and rigid frame; 1-classroom wing, cafeteria, kitchen, agricultural classroom, toilet rooms — $262,725. ARCHITECT: William Hastrup, Anglo Bank Bldg., Fresno. GENERAL CONTRACTOR: Robert Long Const., P. O. Box 1623, Fresno.


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# IN THE NEWS

## FIREMEN'S FUND BUILDING HAS UNIQUE ACOUSTICS

By N. C. Stone

L. D. REEDER CO.

The acoustical correction in the general office areas of the newly completed Firemen's Fund building, San Francisco, is unique in that the net result of the noise quieting is probably the maximum for offices of this type in this region. The acoustical tile in these areas is perforated mineral tile cemented between concrete joist with an egg crate ceiling and lighting suspended below this surface.

A textured mineral fiber tile is placed in the egg crate grid to conceal the ducts and concrete girders, making an effective rectangular pattern throughout. In the traffic lanes the acoustical ceiling is suspended below the ducts, and permits recessed lighting and speaker grids.

The executive wing is treated with fissured mineral tile to match the luxuriant appearance of the surroundings. Light fixtures and air diffusers are recessed in pattern with the acoustical tile.

The accounting area has a completely removable ceiling of dense, perforated, mineral tile layed in an exposed grid system. The use of this material minimized the transmission of sound through the ceiling of adjoining work areas, and at the same time permitted maximum absorbtion within the electronic equipment area itself.

## FIREMEN'S FUND BUILDING POINT-OF-USE STORAGE

To facilitate storage of stationery supplies and forms close to each using department, batteries of filing cabinet units like this were developed. The number of units, of course, depends on the studied capacity needs of each department. Notice how it uses single door storage cabinets of the exact height and depth of GF's 5-drawer SuperFiler; hence can integrate in any file battery. Box storage drawers are substituted for letter drawers and adjustable partitions make them ideal for non-flat, boxed and bottled office supplies. Bulk storage is provided by the storage cabinets.

Padded forms and loose sheets, stationery, etc. are made immediately accessible by housing them in swing front, mechanized SuperFiler letter or cap size drawers.

Periodically, the Supply Department, where the basic or large bulk storage of office supplies is stored in cartons on shelving, replenishes the Point-of-use "Stations" in each department.

It is estimated, large savings in both time and materials will result annually from this improved plant of distribution and control.

## FIREMEN'S FUND BUILDING OPERATIONAL PROBLEMS

The new $4,500,000 Home Office of Fireman's Fund Insurance Company and Affiliates, commanding a magnificent view from San Francisco's Laurel Heights, has been pronounced "one of the most beautiful office buildings in America." It is more than that. It is also one of the nation's most functional and efficient office buildings.

When it was decided to erect the structure — there was immediate agreement upon one point: All operational problems must be solved in advance, and fully.

To this end, Nicholas A. Begovich, Assistant Controller, heading Management Services, and his able methods and procedures staff, made an exhaustive study of work flow within departments, of paper flow from one department to another and of traffic flow between departments. Joining him in this research, which continued for more than a year, was the project's architect, Edward B. Page of San Francisco, winner of national awards in his field.

At this point, MacDonald, Young & Nelson, Inc., general contractors, took over. But before a shovelful of earth was turned, there were additional conferences —endless conferences—and frequent revision of plans. Nothing was overlooked from the time-saving, labor-saving point of view—from the placement of holders for paper clips to a battery of accounting machines weighing 1½ tons each.

Meanwhile, as this work went forward, The General Fireproofing Company, world's largest maker of metal business furniture, was selected to furnish all metal furniture—42 carloads of it—including 1,600 filing cabinets, 900 desks, 200 tables and an avalanche of other items, such as chairs, counters, library stacks, shelving, storage and mailing room and special equipment.

Specialized assistance came from both General Fireproofing's headquarters in Youngstown, Ohio, and from a large staff in the San Francisco branch. Supervising the General Fireproofing studies, planning and installation, was C. W. Straubel, Bay Area Manager for the company, who cooperated closely with Mr. Begovich and his staff for several months.

When The Fund's staff of 850 moved into the new quarters from their downtown location—a week-end move that was made without interruption of office work —eyes literally popped. The building itself arose near the middle of a 10.2-acre tract, all beautifully landscaped. The re-inforced, quake-resistant structure glittered with glass; about an acre of it had gone into the floor-to-ceiling windows. Air-conditioned throughout, the edifice was nothing short of an employee's dream, with innumerable facilities for comfort, convenience and efficiency — game rooms and lounge rooms for recreational periods, kitchen, cafeteria, outdoor terrace fragrant with flowers, and soft music.

Inside, because of construction innovation, the staff found that the usual wide columns were largely absent, allowing for sweeping vistas and great freedom in placement of desks and other furniture.

Visitors still marvel at the amount of advance planning that went into The Fund's new Home Office. No wonder they say it was built "from the inside out."

## VERNON ZURICK APPOINTED MANAGER SAN FRANCISCO

Vernon Zurick has been appointed manager of the recently opened San Francisco office of Charles W. Lerch & Associates, elevator consulting engineers.

Zurick joined the firm earlier this year


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and has been handling special assignments in the Chicago office. He was associated with the National Bureau of Standards for five years, serving as physicist and engineer at the central radio progagation laboratory at Boulder, Colorado.

In his new post Zurick will work with Charles W. Lerch, president of the engineering firm, on all phases of vertical transportation consultant services to architects, engineers, and building owners.

### NEW OFFICE BLDG FOR LOS ANGELES

Architect Daniel L. Dworsky, AIA, has completed plans and specifications for construction of a new office building in Los Angeles for Dunas, Greene and Swidler, co-owners.

The new facility will be 2-story, concrete block and steel with wood roof and floors, terrazzo, corridor walls of hardwood paneling, decorative steel stairway, aluminum windows; 17,000 sq. ft. of area. Estimated cost $300,000.

Off-street parking has been provided to accommodate 30 automobiles.


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### FIXTURE FIRM MAKES PERSONNEL CHANGES

Fred J. Bertolone has been appointed Sales Engineer in the San Francisco district for Fluorescent Fixtures of California, succeeding Milton C. Very who has been transferred to the Texas district.

Other changes in personnel announced by Charles D. Buchanan, company vice-president and Sales Manager, include the appointment of William L. Eliot to the Oakland and East Bay Territory: Marvin Rav to Assistant Regional Sales Manager, and Aubrey C. Wolfe as Quotations Manager.

### ROBERT W. GRIFFITH NEW FENESTRA ADVERTISING HEAD

Robert W. Griffith has been appointed Manager of Advertising of Fenestra Inc., according to an announcement by E. A. Miller, vice president of the firm.

Griffith will have charge of all company advertising, sales promotion and publicity activities.

### LANDSCAPE FIRM OPENS OFFICES

The Landscape Architectural firm of Baronian and Danielson, has recently opened new offices at 760 Santa Clara in Alameda, and will specialize in residential, institutional, recreational and large scale landscape and planning activities.

The firm is comprised of Leslie Baronian, B.S., University of California in 1952, and Robert Danielson, B.S., University of California in 1952 and Masters Degree, UC, 1956.

### NEW FEDERAL BUILDING

The General Services Administration, San Francisco, has selected a site for the construction of a new US Court House and Office Building in Phoenix, Arizona.

The site contains 90,000 sq. ft. A site for parking will be acquired in an adjoining block. Estimated total cost is $8,600,000.

### LUNDGREN AND ASSOCIATES OPEN SAN FRANCISCO OFFICE

Haarstick Lundgren and Associates Inc. of St. Paul, Minnesota, architects and engineers, have opened an office in San Francisco to better serve clients in the western part of the United States.

Robert A. Bennighof, associate, will be in charge of the new office. He is a graduate of the University of Minnesota, with a bachelor of architecture degree, and of the Cranbrook Academy of Art, Bloomfield Hills, Michigan, with a master of architecture degree.

The firm employs 60 people in their St. Paul office.


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### K-LATH CORP.'S NEW PRODUCT

A plaster and wire lath for ceiling construction that offers such structural strength the ceiling can not fall, unless the building collapses, is now made possible by electrically welded steel wire, paper-backed K-LATH and specially designed zinc-plated earthquake staples, according to Robert W. Davis, president of the K-Lath Corp.

When applied according to specifications under wood or steel joist, it forms a sheer ceiling.

### NEW GILROY ELEMENTARY

Architect L. F. Richards, 1033 Jackson St, Santa Clara, is preparing plans and specifications for construction of a new Elementary school in Gilroy for the Gilroy School District.

The new plant will include 10-classrooms, 1 kindergarten and administration facilities. Estimated cost is $300,000.

### ELDORADO SCHOOL WEST COVINA

Architects Flewelling & Moody, 766 Colorado St, Los Angeles, have been commissioned to prepare preliminary plans for construction of a reinforced masonry, 6-classroom school addition to the Eldorado School in West Covina for the West Covina Elementary School District.

### LAKE TAHOE BRANCH BANK

Plans have been completed for the construction of a 1-story rustic appearing, cut stone and wood exterior bank building at Bijou, Lake Tahoe, for the Bank of America, San Francisco.

The new building, with picture windows, heavy timber roof, fully air conditioned and winterized will cost an estimated $250,000.

### TWELVE UNIT OFFICE BUILDING

Engineer E. Zeplin Springe and Ralph H. Reisinger, 1765 Newport Ave., Costa Mesa, are preparing drawings for construction of a concrete block, frame, stucco, decorative ceramic tile and porcelain enamel 2-story, 12-unit office building in Newport Beach.

Construction will be by the Coast Construction Co, 230 30th St, Newport Beach.

### BROOKSIDE ELEMENTARY SCHOOL FOR WILLITS

Architect J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa, has completed drawings for construction of a 1-story wood frame Brookside Elementary School addition for the Willits Unified Elementary District.

The added facilities will include 5-classrooms and covered corridors.

### DRIVE-IN RESTAURANT

The firm of Reichi & Starkman, Maxwell A. Starkman, architect, 1022 S. La

Cienega Blvd., Los Angeles, is preparing plans for construction of a drive-in restaurant in East Anaheim, for Stan's Drive-In.

The new building will contain 3000 sq.ft. of area, and will be of masonry and frame and stucco construction, composition roofing, concrete slab, plate glass, serving and cooking facilities and concrete asphaltic paving.

### LATTER-DAY SAINTS CHURCH

The Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah, have been granted a building permit by the City of Oakland, for construction of a $900,000 new church building to be built in the 4700 block on Lincoln Way in Oakland.

The completely modern church will be of structural steel and brick construction and is being designed by Douglas W. Burton, 2154 Wentwood, Los Angeles.

### ENGINEERING FIRM EXPANDS

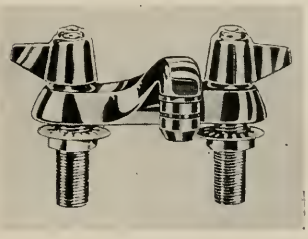
Leland S. Rosener, Jr., Engineers, have become Rosener Engineering Inc., Engineers and Architects, maintaining the same key personnel with offices at 149 New Montgomery St., San Francisco, according to a recent announcement.

Roland K. Kuechle, AIA, has become associated with the firm as Chief Architect.

The new corporation is a continuation of a private practice in architecture dating back to 1904 when Mr. Rosener's father established a consulting engineering business.

### SELFRIDGE ANNOUNCES NEW FAUCETS, FITTINGS

Three new lavatory faucet combinations with matching fittings have been announced by Selfridge, featuring a distinctively styled centerset faucet with canopy handles.



Shutoffs are designed with O-Ring packing, that holds water below stem threads to increase service life and prevent top leaks; these new items broaden the firm's line of sink faucets and accessories, rough brass goods, globe and swing check valves. Complete data from Selfridge Brass Products Inc., 5606 Euclid Ave., Cleveland 3, Ohio.

### FREIGHT LINE TERMINAL BLDG.

Plans have been announced for construction of a $500,000 terminal facilities for Navajo Freight Lines, Inc., on a 230,000 sq.ft. site in Downey, California.

Facilities, expected to be completed in December by Twaits-Wittenberg Co., contractors and engineers, will include a 2-story, 9020 sq.ft. office building of tilt-up wall construction with structural steel and wood frame interior; an 18,000 sq.ft. dock, and a 13,000 sq.ft. service shop.

The new terminal will be the West Coast Headquarters of Navajo Freight Lines. Plans and specification were prepared by John Kewell and Associates, architects.

### SWIMMING POOLS AND BATH HOUSE

Architect H. Ruhnau, Mission Inn Rotunda, Riverside, is preparing drawings for construction of two gunite swimming pools and a reinforced masonry bath house at Cutter Park, Riverside, for the Riverside School District.

One pool will be 42x75 ft. and have maximum depth of 4' 6", the other pool will be a divided pool containing 30x75 ft. The bath house will contain a total floor area of 5,000 sq.ft.; folded concrete plate roof, ceramic tile, slab floor, toilets and showers, blacktop paving and chain link fencing.

### FIRST UNITARIAN CHURCH

Architect George Lykos, 616 Spreckels Bldg., San Diego, has been commissioned to prepare plans for a new church building to be built on a 7-acre site in San Diego, for the First Unitarian Church.

Estimated cost of the project is $250,000.

### SHERIDAN M. KERR NEW FIELD REPRESENTATIVE

Sheridan M. Kerr has been appointed a field representative with the Pacific Coast Division of the L. O. F. Glass Fibers Com-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pany, according to an announcement by John A. Morgan, vice president and general manager of the division.

Kerr, formerly associated with the Merchant Shippers Association as sales manager, will have his headquarters in San Francisco. He is a native of San Mateo, California, and attended Washington State College.

### SWIMMING POOL FILTER HOUSE

Architect L. F. Richards, 1033 Jackson St, Santa Clara, has completed plans for construction of a new swimming pool and filter house for the City of Gilroy.

The new facilities will be used jointly by the City's recreation department and the high school district.

### LABORERS BUILD UNION BUILDING

Structural Engineer Hugh M. O'Neil, 610 16th St, Oakland, is preparing plans for construction of a 1-story, concrete block, 50x100 ft. headquarters building in Richmond for the Laborers Union, Local 324, Richmond.

Estimated cost of the building is $50,000.

### ASCE ANNOUNCE NEW COMMITTEE MEMBERS

The American Society of Civil Engineers has announced the appointment of new members of Executive Committees of Technical Division who will serve the Society until October 1961.

Among those named are: Everett B. Mansur, Planning Consultant, San Gabriel, California, City planning; Egor P. Popov, Prof. Civil Engineering, University of California, Berkeley, Engineering Mechanics; Kenneth Q. Volk, Consulting Engineer, Los Angeles, Irrigation and Drainage; John F. Bonner, Assistant to Vice President and Chief Engineer, PG&E Co., Los Angeles, Power; and Thomas M. Leps, Chief Civil Engineer, Southern California Edison Co, Los Angeles, Soil Mechanics and Foundations.

### CEMENT MASONS FORM NC INSTITUTE

Application for articles of incorporation of the Cement Masons Institute of California have been applied for, according to James W. Davis, San Leandro, president of the newly formed organization which represents cement contractors and labor.

Estell V. McBride, San Rafael, has been named secretary treasurer.

Twelve locals have already become affiliated with the Institute representing the San Francisco-Oakland Bay area and the San Joaquin Valley as far south as Fresno.

O. B. Barnett and Ralph B. Edminister, both of Fresno, have been named as directors of the Institute.

### THE NEW HENRY TRACTOR-LIFT

Offers job-site materials handling with "big tire" mobility; designed to reduce on-the-job lifting costs. Handles any job a regular lift-truck can handle, with the added advantages of big wheel traction and clearance.

Three models are available for IHC and John Deere wheel and crawler tractors and can be mounted in rear, rear-mounted with operator reversed, or front-mounted. Can maneuver in mud, snow, and pass over chuck holes and clutter; attachments include boom crane, dozer blade, concrete blocktines, snowplow, cement hopper, personnel platform and bulk materials bucket. Complete data from manufacturer Henry Mfg. Co., Inc., 1700 N. Clay St., Topeka, Kansas.

### PACIFIC CEMENT STAFF CHANGES

Pacific Cement & Aggregates, Inc., San Francisco, recently announced a number of changes in sales representation in its cement division:

Joe McKenna, former San Francisco


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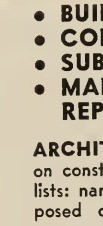


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sales representative, replaces the late Bob Priest at the San Jose office; A. J. "Rod" Rodrigues, former building materials salesman at the San Mateo yard replaces McKenna at San Francisco headquarters.

Pat Ransome, previously building materials salesman in the Hayward area, is now Oakland sales representative assisting Frank Oates. Ralph Robey, former general manager of the construction division of Fortier Const. Co., Fresno, has been appointed sales representative for the San Joaquin area.

### ORANGE COUNTY HOME PROJECT

Orange County Planning Commission has approved plans for a 1234 home subdivision in Los Alamitos and Garden Grove Blvds.

The development planned by Ross W. Cortese, developer, will cover 398 acres and will include sites for three elementary schools and a commercial center.

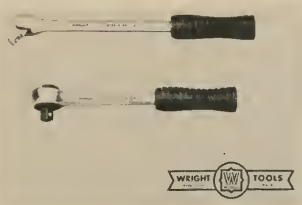
### NEW MEDICAL BUILDING

Architect William D. Concolino Jr., 588 Huston St, Monterey, is working on plans for construction of a nine unit Medical Building to be built in Monterey for the Paloma Land Company.

The building will be 1-story, wood and frame constuction and will contain some 8000 sq. ft. of space.

### RATCHET WRENCHES AND FLEX HANDLES

Rubber grips are made of synthetic rubber of a type which is resistant to grease, oil, gasoline, and all petroleum products; also abrasion resistant and unaffected by most solvents.




These new grips provide over twice the gripping surface of regular metal grips, slip less when wet or oily and are shaped to fit the hand. Workman's hand is insulated from heat, cold, and electrical shock. Available in red, blue, yellow, green, mottled, speckled, and many other colors. Complete data from Wright Tool & Forge Co., 42 E. State St., Barberton, Ohio.

### ARCHITECT JOINS LOS ANGELES FIRM

Ben H. O'Connor, AIA, has become associated with the Los Angeles architectural firm of Austin, Field & Fry, according to a recent announcement.

He has been practicing architecture in Los Angeles since 1934 and prior to that time engaged in the practice of architecture in Chicago. In 1939 he was appointed to the California State Board of Architectural Examiners, serving until 1942 when he resigned to enter the U. S. Marine Corps.

O'Connor will serve the firm as executive director in charge of the architectural, structural, mechanical and electrical branches of the organization.

### NEW COUNTY COURTHOUSE

The site of the old Garibaldi Hotel in Santa Cruz has been acquired as the site for construction of the new Santa Cruz County Courthouse, according to an announcement by architect John Lyon Reid & Partners, 1019 Market Street, San Francisco, who have been commissioned by the Board of Supervisors to design the new building.

Preliminary plans are being undertaken pending results of a Federal Loan which has been applied for by the county.

### MEAT PROCESSING PLANT ADDITION

Architect Frank E. Mosher, Bank of America Bldg., Glendale, has completed drawings for construction of a brick addition to a meat processing plant in

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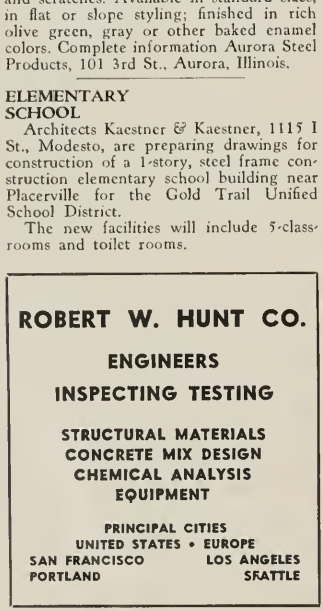
The new facilities will include a frame roof, concrete slab, loading apron, plastering, 350 sq.ft. freezing room, refrigerator doors, metal windows, composition roofing, asphaltic concrete paving; 18x50 ft. of area.

### NEW PUBLIC LIBRARY

Architect Leonard H. Ford, 1644 N. Main St., Walnut Creek, is preparing plans and specifications for construction of a 1-story, 5000 sq.ft. area, new public library building for the city of Walnut Creek.

### "FLUSH FRONT" STORAGE LOCKER

An all new "flush front" storage locker featuring a door with recessed handle and ventilating louvers; utilizes a 3-way action latch which has a completely retractable padlock loop and pre-locking feature, permitting the door to be locked while open, and lock automatically when closed.



Latch plate serves as a padlock striking plate, protecting the locker against digs and scratches. Available in standard sizes, in flat or slope styling; finished in rich olive green, gray or other baked enamel colors. Complete information Aurora Steel Products, 101 3rd St., Aurora, Illinois.

### ELEMENTARY SCHOOL

Architects Kaestner & Kaestner, 1115 I St., Modesto, are preparing drawings for construction of a 1-story, steel frame construction elementary school building near Placerville for the Gold Trail Unified School District.

The new facilities will include 5-classrooms and toilet rooms.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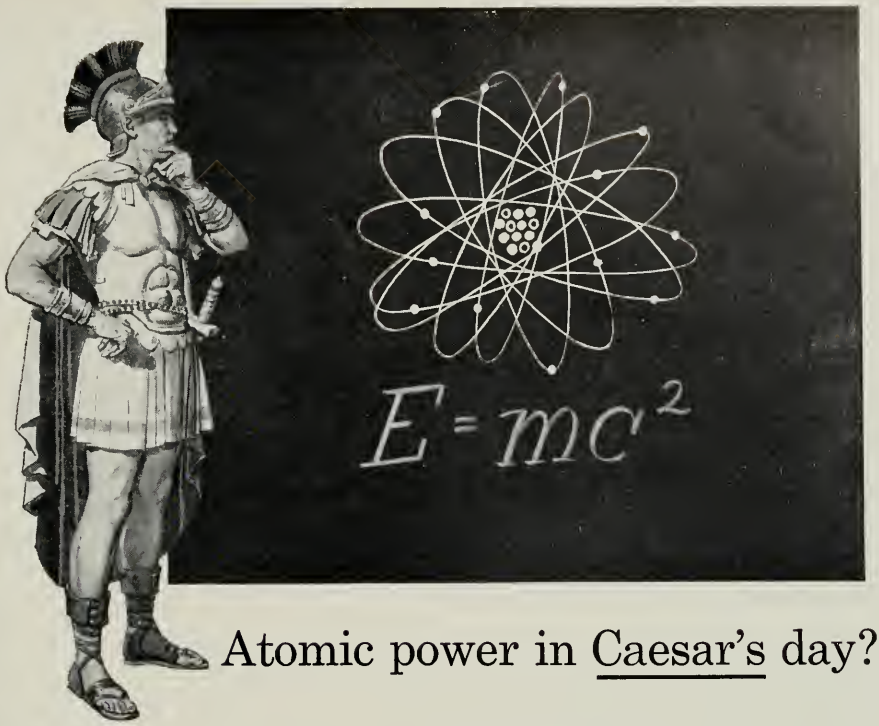
*Indicates Alternate Months




# Atomic power in Caesar's day?

*Certainly!*

It was there, in the ground, in the air and water. It always had been. There are no more "raw materials" today than there were when Rome ruled the world.

The only thing new is knowledge . . . knowledge of how to get at and rearrange raw materials. Every invention of modern times was "available" to Rameses, Caesar, Charlemagne.

In this sense, then, we have available *today* in existing raw materials the inventions that can make our lives longer, happier, and inconceivably easier. We need only *knowledge* to bring them into reality.

Could there possibly be a better argument for the strengthening of our *sources* of knowledge—our colleges and universities? Can we possibly deny that the welfare, progress—indeed the very *fate*—of our nation depends on the quality of knowledge generated and transmitted by these institutions of higher learning?

It is almost unbelievable that a society such as ours, which has profited so vastly from an accelerated accumulation of knowledge, should allow anything to threaten the wellsprings of our learning.

*Yet this is the case*

The crisis that confronts our colleges today threatens to weaken seriously their ability to produce the kind of graduates who can assimilate and carry forward our rich heritage of learning.

The crisis is composed of several elements: a salary scale that is driving away from teaching the kind of mind *most qualified* to teach; overcrowded classrooms; and a mounting pressure for enrollment that will *double* by 1967.

In a very real sense our personal and national progress depends on our colleges. They *must* have our aid.

Help the colleges or universities of your choice. Help them plan for stronger faculties and expansion. The returns will be greater than you think.

If you want to know what the college crisis means to you, write for a free booklet to: HIGHER EDUCATION, Box 36, Times Square Station, New York 36, New York.

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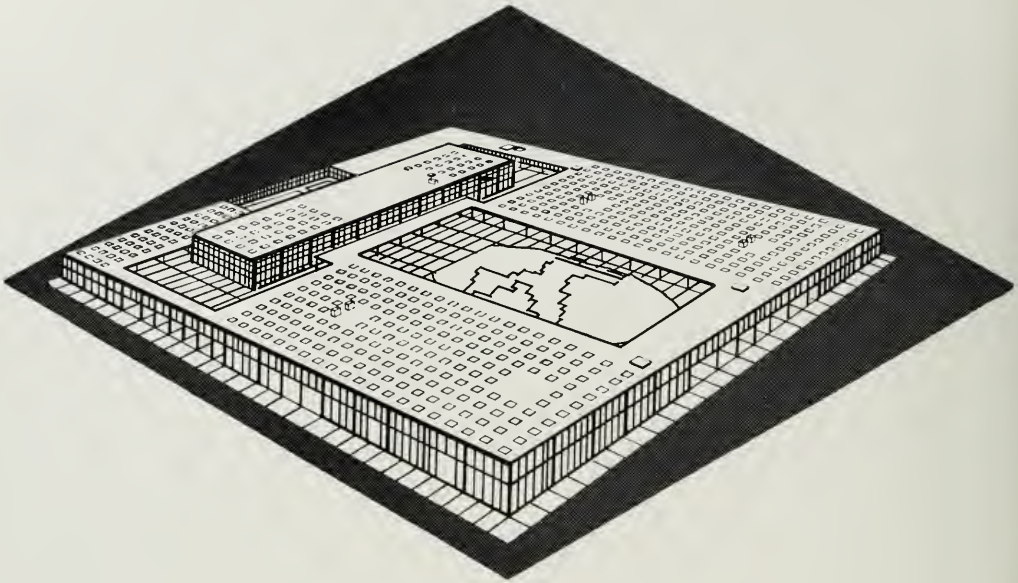
# ARCHITECT AND ENGINEER

OCTOBER, 1957



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Vol. 211 No. 1

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# . EDITORIAL NOTES .

## SUPER HIGHWAY PROGRESS

We won't be rolling along the nation's new superhighways for a while, but the gigantic federal-aid highway program is proceeding right on schedule.

That was the conclusion reached in a U.S. Chamber of Commerce analysis of progress under the program which disclosed that work obligated in the interstate system increased nine times during the past year.

On all federal-aid systems, the work obligated doubled during the first year of the new federal highway program.

These developments should ease the concern of many who have been expecting to see the highways leap across the nation.

The fact is that it takes from eighteen to twenty-four months after the U.S. Bureau of Public Roads approves plans before the first bulldozer starts to work.

Construction must be preceded by preliminary work that includes the purchasing of rights-of-way, awarding of contracts, engineering, and preparation by the contractor.

Some states are behind schedule, but thirty have obligated all of their 1957 federal-aid apportionment. There's no reason to believe the program won't be completed on schedule.

* * *

*"Modern color planning no longer draws a hard line between the home interior and its exterior . . . they should be decorated to blend together and thus fit today's concept of out-door-indoor living,": Sylvia Harmon, Color Consultant.*

* * *

## ARCHITECTS HONOR FOUR

The California Council of The American Institute of Architects, in annual meeting in Coronado the first of this month, singled out four Californians closely identified with the practice of Architecture and the light construction industry, for distinctive and a justified recognition.

While any jury of judges charged with the task of making such a selection of individuals would have an extremely difficult task to limit outstanding architects and others closely identified with the architecural profession to four, their choice of the three architects and one home builder selected for awarding of the Council's Certificates of Distinguished Service, highest honor of the California Council of the A.I.A. certainly represent individuals with outstanding records of achievement in their particular fields.

The three architects receiving the certificates were:

Donald Beach Kirby, F.A.I.A. of San Francisco "for his leadership and outstanding service to the architects of California as Regional Director of The American Institute of Architects from 1954 to 1957." Kirby served as president of the Northern California Chapter AIA in 1949 and was a member of the Califonia State Builders Exchange in 1941-42

Earl T. Heitschmidt, F.A.I.A. of Los Angeles "for outstanding service to the community, to the state, and to the architects of California during his vice presidency of The American Institute of Architects in 1954-55". He also served as California-Nevada-Hawaii Regional Director of the Institute and president of the California State Board of Architectural Examiners.

John Lyon Reid, F.A.I.A., another San Franciscan "who served the architectural profession with distinction in 1956 as California Council president". Reid is one of the nation's most honored school architects and has served as chairman of the California State Title 21 (Field Act) Advisory Board.

The only allied interest individual receiving the award was Joseph L. Eichler of Palo Alto, and nationally recognized in the home building field.

The Certificates of Distinguished Service were inaugurated at last year's meeting of the Council "to recognize outstanding service to the architectural profession in California."

* * *

*During the next 13 years, more money will be spent for highway construction on the federal-aid system alone than has been spent during the last 26 years on all federal, state, local and city streets, according to the U.S. Chamber of Commerce.*

* * *

## BETTER HOME PROSPECTS

A cheering Home Financing report comes from the Federal Housing Administration in which it discloses that in 1956 the average income of purchasers of $10,000 homes was $5,363 a year.

The repossession rate of all FHA plan homes is only .48 of one per cent, refuting claims of advocates of govenment middle-income housing that buyers of $10,000 homes need an annual income of $6,319.

These facts should be invaluable to those opposing Congressional proposals that would increase taxes by providing governmental housing help for middle-income groups.

Lower taxes will provide more and better housing.

*from the electrical contractor's viewpoint...*

# Smoot Holman Stands Highest ...in lighting!

Ask the man who puts 'em up—he'll tell you the Smoot-Holman label on any fixture means:

1. Full light output
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For information and assistance on your next lighting job call the nearest Smoot-Holman office or write direct.

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We support the National Lighting Bureau

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# NEWS and COMMENT ON ART

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, is presenting the following special exhibitions and events:

EXHIBITIONS: The Autum Rental Gallery, a comprehensive selection of new works: Photographs by Dorothy Norman and Minor White; Edvard Munich and the Northern European Expressionists in Prints, these represent recent major additions to the permanent and loan collections: Asia Art and the West; and continuing the Annual Watercolor, Drawing, and Print Exhibition of the San Francisco Art Association, and the Syracuse National Ceramic Annual.

SPECIAL EVENTS: Concerts, Lecture tours, Wednesday evening Discussions on art; and Museum activities include Studio-Art for the Layman, Adventures in Drawing, and the Children's Saturday Morning Art Classes.

The Museum is open Daily.

## CITY OF PARIS

The Rotunda Gallery of the City of Paris, San Francisco, under the direction of Andre Laherrere, is offering a special exhibition of Paintings, by Jonathan Batchelor and Alfred Owles. The Little Gallery will feature the work of Jane Haseltine.

## OAKLAND ART MUSEUM

The Oakland Art Museum, division of the Oakland Public Library, Municipal Auditorium, has announced the following schedule of exhibitions and events for October:

EXHIBITS: The Bay Printmakers' Society Third National; the California Sculptors' Annual, representing sculpture in all media by artists residing in California; the Richards Ruben and Richard Brennan 2-man Show of prints and sculpture; the New Art Rental Service Selection, offering an entirely new selection of paintings and sculpture representing nearly 100 local artists; and the Bob Winston Jewelry display, a craft case display of jewelry in gold, silver, and other materials.

EVENTS: The Wednesday night Lecture and Film Series will feature Bob Winston, Jeweler; James Broughton, Poet and Film Maker; Alan W. Watts, Philosopher, Sculpture Show Juror, and Elliot Evans, California Historian. October classes in Art will feature "Looking at Crafts", a study of American artist-craftsmen; Christmas Crafts, and experimental workshop in the use of inexpensive materials to produce holiday decorations; and Painting Classes for Adults.

The Museum, S.W. Corner, Municipal Auditorium, Tenth and Fallon Streets, is open daily.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, has announced the following schedule of special exhibitions and events for this month:

EXHIBITIONS: Illuminations of 50 Great Paintings and The Sistine Chapel Ceiling, developed and introduced by Life Magazine. Included are masterpieces from the collections of such European centers as the Louvre, the Uffizi, the Prado, and London's National Gallery, as well as many American Museums. Drawings from Bologna, 1520-1800, from the Collection of Janos Scholz; Paintings by Hector Escobosa; and The World of Cartier-Bresson, retrospective exhibition of photographs, 1926-1956.

SPECIAL EVENTS: Classes in Art Enjoyment, for Adults—Exercises in Oil Paintings, Painting Workshop for Amateurs, and Seminars in The History of Art. Picture Making, Art and Nature and the Art Club for Children.

The Museum is open daily.

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., has announced the following special exhibitions and events for this month:

EXHIBITS: Paintings and Drawings by Raymond Brossard; Paintings by Gail Cole; Navajo Sand Paintings by David Villasenor; Watercolors by Viking Leon; Paintings by Grandma Moses, representing 34 important pictures by this remarkable personality in American Art, assembled from notable public and private sources; 19th Century French Paintings from the Museum Collection; and Paintings by Margaret Sibley.

The Achenbach Foundation for Graphic Arts (at the Museum) is showing The Printmaker 1450-1950, about 120 master prints illustrating all important stages of printmaking through the ages; and on loan exhibition at the Public Library, "Fine Feathers make Fine Birds," an exhibit of fancies of fashion in former Centuries.

SPECIAL EVENTS: Organ Program each Saturday and Sunday at 3 p.m.; special educational activities include Art Classes for Children including Junior High School age.

The Museum is open daily.

### SPECIAL BOLOGNA DRAWINGS AT de YOUNG MUSEUM

An exhibition of 108 drawings from Bologna from the collection of Janos Scholz of New York are currently on display at the M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco.

The drawings span the years between 1520 and 1800 and were assembled for circulation by Mills College Art Gallery, Oakland. They follow the show "Drawings from Lombardy" exhibited in 1956 and present another sector of the Italian artistic scene.

The collection contains drawings of the Carracci famliy, and Guido Reni, Guercino and Domenichino, and Gandolfi.

### GRETA WILLIAMS GALLERY

"Three Generations of Painters," featuring the work of Ester Hamerman, Helen and Leonard Breger and Nanette Breger, is currently being exhibited at the Greta William Gallery, 2059 Union Street, San Francisco.

The Gallery is open week days 12 noon to 6 p. m.

## M. H. DE YOUNG MEMORIAL MUSEUM

**Golden Gate Park San Francisco**

THE
MARKET
CARTS

by

THOMAS GAINSBOROUGH
(English)

1727 - 1788

Was painted about the year 1778, and is a work of his mature style.

From the Roscoe and Margaret Oaks Collection.

*News of another home built with United States Steel*

# Steel conquers time and space on a western slope

Sequoyah House... gracefully poised on a California hillside... is an outstanding example of how an architect can by-pass costly, conventional building methods and take advantage of a steep, sloping site to produce a home of enduring beauty.

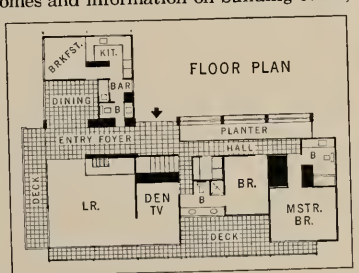
Steel solved the problem. The structural steel frame, erected in three short hours, anchors this home to its hill site, and offers flexible opportunities for future expansion. In addition, steel lends itself to a variety of new design possibilities not available with standard construction methods.

This is the story of Sequoyah House... a new concept in home design, with a timeless skeleton of steel.

**From a shallow shelf carved in the hill,** the single-level house juts into space over a reinforced concrete block foundation. Rigid frame construction with seven "U" shaped structural steel ribs, withstands all lateral forces and is cantilevered 11 feet beyond the foundation. Sequoyah House utilized standard steel sections, supplied by United States Steel: 12"WF27# and 12"WF19# for floor and roof beams. The module is 10 feet. Beams carry the floor and "float" the ceiling... to eliminate all load-bearing walls and offer an unobstructed picture-window view.

**"L" shaped plan is open and flexible**... a blending of inter-related spa and well-meshed indoor-outdoor living areas. On the uphill, or groundlev side a large concrete patio with redwood dividers is sun-sheltered under a w e roof overhang, resting on the smoothly tapered tips of the seven major ste supports. The United States Steel shapes in this home are used by lea ng fabricators and are also available through steel jobbers in your area.

**AR CHITECTS & ENGINEERS:** Write for your free copy of *"New Horizo for Home Building... With Steel"*. This new booklet contains case his ries of architect-designed steel homes and information on building codes, spe fication data and advice on the ma tenance and painting of steel. Wr e: Architects & Engineers Service, oom 1260, United States Steel Co oration, Columbia-Geneva Ste Division, 120 Montgomery Str t, San Francisco 6.




*Architect: Thorne, Berkeley, Calif.*
*Builder: Ray Nichols, Oakland, Calif.*
*Structural Engineer:*
*Donald H. Moyer, Berkeley, Calif.*
*Steel Fabrication and Erection:*
*Heck Iron Works, Hayward, Calif.*

*Western homes of the future are now building with steel...* **UNITED STATES STEEL**

Profile showing dromatic lines of roof.

# FIELD HOUSE
## WITH CANTILEVERED ROOF

San Francisco, California

By ARTHUR W. PRIAULX

ARCHITECT:
DONALD BEACH KIRBY
and ASSOCIATES

GENERAL CONTRACTOR:
JAMES I. BARNES

San Francisco's Upper Noe fieldhouse is a structural marvel. It is a building that is held up by being held down. It embraces several new design concepts as well as some intriguing innovations in construction techniques.

The fieldhouse is for children, containing a full-sized basketball court, scaled for children. So ingeniously have architects, Donald Beach Kirby and Associates of San Francisco, developed the design theme for this unusual recreation center that the youngsters do not feel insignificant or undersized.

**AT RIGHT: Gymnasium is held up by being held down with powerful tie rods in sunken concrete deadman—sleeves prevent children climbing to roof.**

**LOWER: Picture shows buttresses support cantilevered beams of auditorium roof—low roof line harmonizing with surrounding low hills.**

The Upper Noe playgroud unit contains two main structures—a gymnasium-fieldhouse connected with a separate and smaller auditorium by an enclosed lobby and central entryway.

It is the fieldhouse which is attracting such widespread attention. It has a sensational roof line, created in part by a unique offset at the peak. The structure was planned as a full cantilevered beam system, the beams being huge man-made timbers, glue laminated from selected Douglas fir lumber. The roof is made up of two seperate, unequal, and connected cantilevered sections independently supported.

The fieldhouse is actually held up by being held down, for the 96-foot long beams of the main roof span rest on heavy concrete buttresses, protruding 20 feet beyond the sidewall to form an outboard anchor.

Each beam is tied down with a 2-3/8 inch steel tie rod, and the rods are fastened below the ground level to a continuous 200-ton concrete deadman six-by-ten feet in size.

The roof line is dramatic and exciting and in sharp contrast with surrounding conventional structures. The long roof span is offset above the shorter span at the ridge.

The fieldhouse gets much of its impression of great strength and sturdiness from the massive exposed glulam beams of the two roof spans and the network webbing of exposed timbered bracing and struts. The protruding beams where they come out beyond the sidewall give a distinctive character to the exterior of the structure.

The main beams are built up to a depth of 5 feet 6⅜ inches where they rest on the buttresses and taper gracefully toward the ends. They are installed at 22-foot intervals. Where the beams are exposed to the elements, they have been capped with aluminum for protection.

The short span is cantilevered from concrete buttresses which also serve as reinforcing ribs for the concrete retaining wall on the uphill side of the building. The glulam beams used in the short span are much smaller, being only 35 feet long.

It took 31 layers of 1⅜ inch lumber 14½ inches wide to lay up the 96-foot long beams at their deepest point. Only the most carefully selected structural grades of Douglas fir dimension lumber are used in manufacturing these glulam beams.

There is no stress connection between the beams of the two separate roof sections at the peak. A truss is used to equalize deflection of the beams and to hold clerestory windows which admit considerable natural light into the gymnasium during the daytime play periods.

Unique is the design of the end walls which have been built free of the roof with the opening between the wall and roof used for ventilation. The upper triangular section of the end walls above the concrete curtain wall is made up of translucent plastic panels

**Low sloping roof section supported by cantilevered beams gives this 81 by 110 foot gymnasium illusion of smallness so children do not feel insignificant—note diagonal variable bracing.**

**AT RIGHT: Large areas of exposed beams and wood walls and ceilings create a feeling of warmth and informality in auditorium.**

**BELOW: Shows common entrance for two buildings and 96 foot long roof beams in place — darker plastic panels are colored to contrast with majority in opaque.**

set in steel frames. A striking geometric design has been created by installing some brightly colored panels in a planned pattern which contrast sharply with the opaque panels.

A heavy timber decking of Douglas fir covers both short and long spans, but a built-up felt roof with sprayed on plastic was used on the large section, while a corrugated asbestos was used over the timber deck on the short span.

To provide maximum possible strength, the roof was designed so that lateral forces would be carried to the sidewalls through diagonal bracing between the main beams. Shear is transmitted to the sidewalls through variable depth bracing. Hinged connections

(See page 30)

Aerial view looking south to San Diego—80% completed.

# CONVAIR OFF-SITE WAREHOUSE

## 500,000 Square Feet

## SAN DIEGO, CALIFORNIA

ARCHITECT:

RICHARD GEORGE WHEELER
and ASSOCIATES

GENERAL CONTRACTOR:

JAMES STEWART CO.

The 500,000 sq. ft. Convair Off-site Warehouse facility in San Diego, California, is one of the largest steel frame buildings in the world. The story of its design and building is the exciting story of a race against time.

So urgent is the need for speed on the project that when grading of the site began on December 11, 1956, no plans of any kind had yet been drawn. It was known only that a gigantic warehouse with large craneways was needed. However, it was clear even then that it would be the largest building ever constructed in the area.

As the James Stewart Company of Phoenix, the builders, began excavation of the 800,000 cu. yds. of earth to be moved to prepare the site, Richard George

Wheeler & Associates, architects and engineers of San Diego, began to plan the building.

Convair's immediate need was to free several hundred thousand square feet of space for production facilities, and the warehouse would provide that space by serving as storage area for materials now held in 13 separate areas. Offices to service the warehouse were to be included, and the building would have to be completed in sections so that space could be put to use as quickly as possible.

The 25-acre Rose Canyon site parallel to Highway 101 and the Atchison, Topeka and Santa Fe railroad tracks, had been chosen as the only one available to fit all the requirements: To be north of Convair Plants 1 and 2, of sufficient acreage, adjacent to a major highway, within easy traveling distance of the main plant, and reasonable cost.

But the site presented thorny problems that must be solved: A building site must be made on what had been the floodway of the creek emptying into Rose Canyon. The drainage channel of the small canyons between the hills had to be re-routed. And compaction difficulties were presented by the soil, a clay loam of poor bearing capacities. The hill which was removed in excavation had actually been used as clay for a brick plant that lies west of the site.

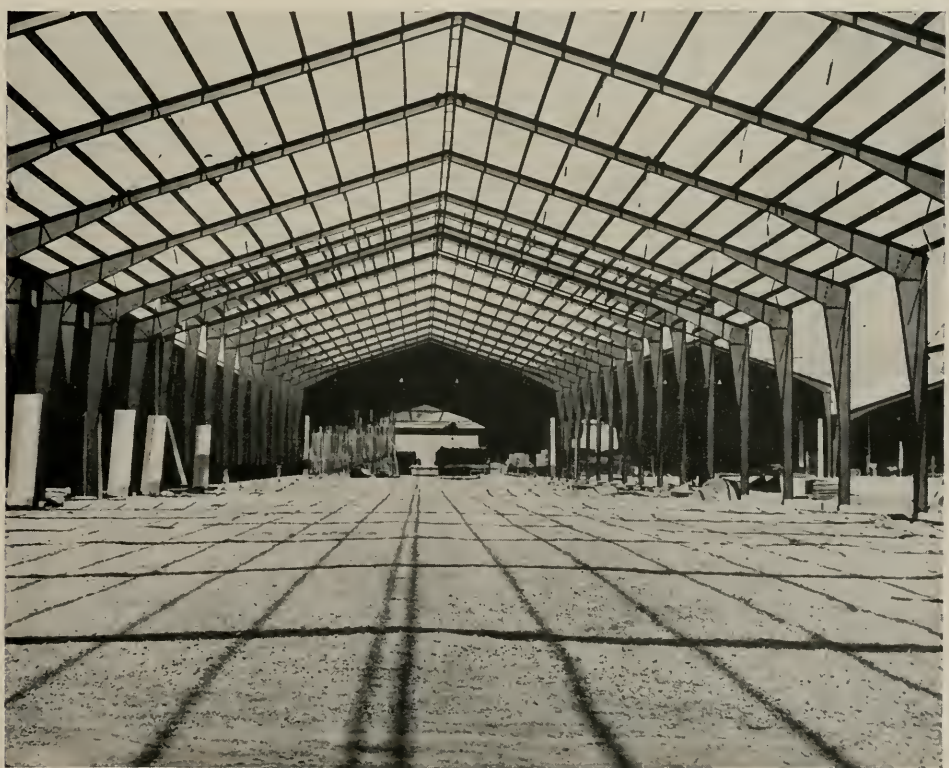
Finally, the major portion of the building would have to be built on fill, for of the excavated earth, 550,000 cu. yds. would be used again to fill other areas of the site.

As these problems were solved, others appeared. For

(See page 32)

**Night View of interior.**

**Placing steel bents**



**EPISCOPAL CHURCH OF ST. MATTHEW—front portion moved 30 feet.**

# HALF A CHURCH IS MOVED

## SAN MATEO, CALIFORNIA

**By HUGH A. WAYNE**

400 tons of stone and mortar, plus an $80,000 stained glass window forming the front section of the four story high 91-year old Episcopal Church of St. Matthew in San Mateo, California, was gently parted from the main structure of the church in a spectacular moving feat.

The massive undertaking, which moving experts rated as one of the most difficult ever attempted, went forward without a hitch under the direction of the Morris Daley Co., general contractors.

The section was rolled away from the main portion of the church on heavy I-beam tracks supported by cement filled cassions sunk more than 25 feet in the earth. Four horizontal hydraulic jacks nudged the huge mass forward at the rate of five feet per hour. By the end of the day the gap had been extended to the thirty feet required in the church's expansion plans.

Two new fifteen foot bays will be built between the older sections. Four new stained glass windows designed and executed by Henry Willet of Philadelphia are being made for the new section.

Reverend Lesley Wilder, Rector of the church, explained that the $375,000 remodeling program underwritten by parish members, included in addition to the nave expansion, extensive alterations to the Parish House including the addition of a second floor.

The remodeling work was planned so that services could be held in the main portion of the church while alterations were in progress.

In describing the work, architect Milton T. Pflueger, pointed out:

St. Matthew's, designed by D. H. Burnham and Willis Polk, and constructed in 1910, is a truly fine example of English Gothic Architecture as applied to a suburban community, and it is, very understandably, held in highest esteem by the Church.

It was our assignment to increase the size in some manner which would in no degree harm or change its character, or offend in any way, the sensitivity of the design.

Various schemes of enlargement were studied involving side chapels, side aisles, etc., all of which did not work satisfactorily.

We then explored the lengthening of the Nave, which was 60 feet long (35 feet wide). This could

(See page 24)

**ABOVE: 400 tons of Church going for a ride at the rate of five feet per hour—for a distance of thirty feet.**

**RIGHT: Workmen laying giant I-beam track to carry Nave section in moving operations in San Mateo, California.**

# EGG PACKING AND GRADING PLANT POULTRY PRODUCERS of CENTRAL CALIFORNIA

**San Leandro, California**

ARCHITECT:

J. FRANCIS WARD, A.I.A.

GENERAL CONTRACTOR:

SWINERTON & WALBERG CO.

LANDSCAPE ARCHITECT:

RUDOLPH WATSON

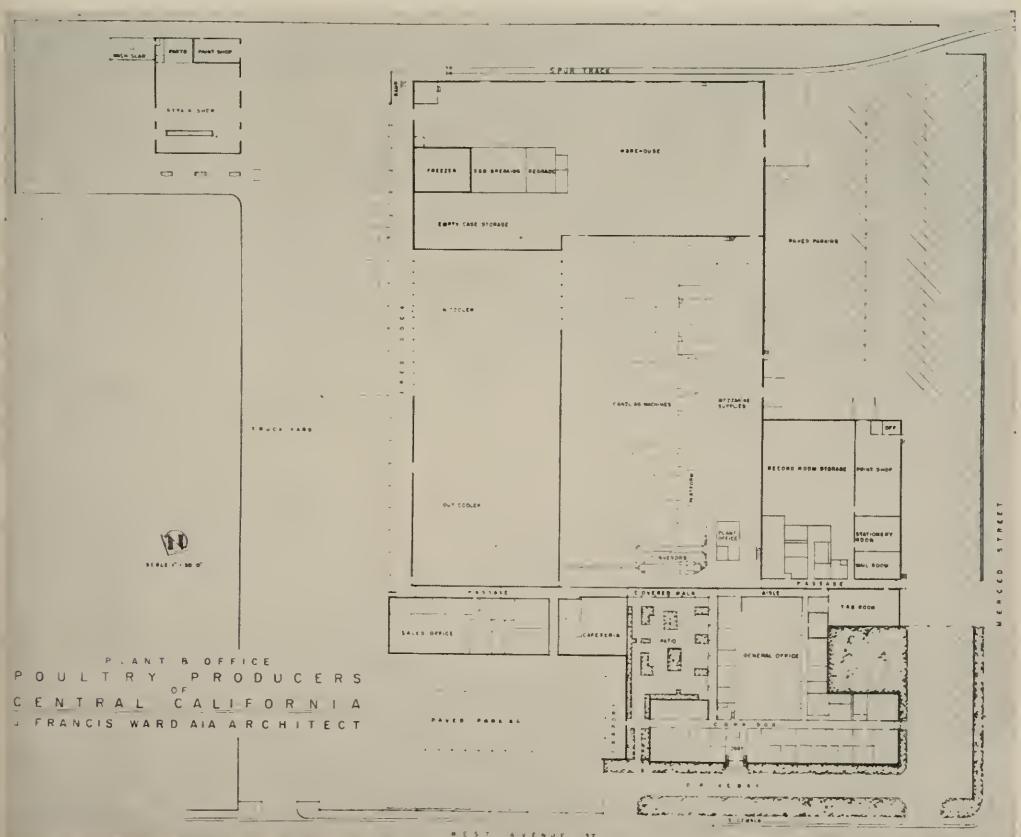
**By FRED W. JONES**

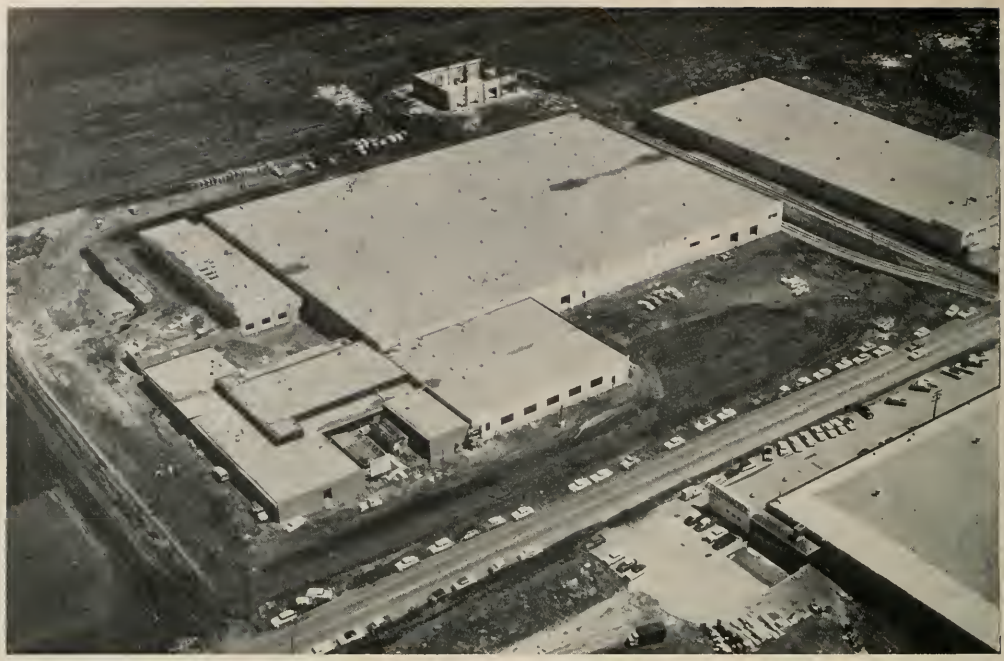
The new multi-million plant and general offices of the Poultry Producers of Central California to be completed this month in San Leandro is the result of an extensive survey by the Stanford Research Institute in 1954-55. The Cooperative in the past has operated egg packing plants in many sections of Northern California, such as Modesto, Sacramento, Santa Rosa, Petaluma, and other locations, with Headquarters in San Francisco. As a result of the survey it was decided to center the operations in one location, and San Leandro was chosen as the most desirable based upon economy of receiving and distribution of the product

in Northern California. With the exception of Sacramento, egg packing operations will now be concentrated at San Leandro and the other eight plants will be abandoned, including the general offices and distributing center in San Francisco. The Poultry Producers of Central California comprises 10,500 members and engages, in addition to egg packing, in the distribution of farm supplies, farm seed, and feed. Eggs are packed and distributed to the retail market under the brand name of Nu-Laid and in addition to large marketing concerns such as Purity Stores under their own names.

In 1955 the Cooperative now headed by President Robert A. Shone, engaged the services of J. Francis Ward, well-known industrial Architect of San Francisco and with his cooperation selected a 15 acre site at Merced Avenue and West 137th Street in the industrial section of San Leandro. Under the direction of Mr. Lawrence N. Thompson, General Manager, the Architect, in cooperation with Ralph J. Ahl, Egg De-

**VIEW of office exposure towards the street—roof overhangs for sun and storm protection.**





**AIR VIEW showing large area of warehouse and offices under construction.**

partment Manager, Fred Miehle, the Owner's Chief Engineer, and the Food Machinery Corporation's engineers then embarked on a series of exhaustive studies of the most efficient methods of handling the incoming eggs, their storage, the flow through the egg candling machines, grading, packaging and the routing of the out-going products to cold storage and thence to the delivery trucks. An indication of the complexity of


**READY MIXED CONCRETE**

on the $1,000,000 plant of the
Poultry Producers of Central California
San Leandro

SUPPLIED BY

**Rhodes & Jamieson, Ltd.**

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and PLASTERING
on the
Plant & Office Poultry Producers
of Central Calif.
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**CLAUSEN & CLAUSEN**
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- **ROOFING**
- **WATER PROOFING**
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*on the Poultry Producers Plant by*

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**VIEW AT RIGHT:**

**Shows patio area, landscaped, and designed for maximum natural lighting for offices and rooms facing the patio.**

the problem is the figure of the output of the plant, which amounts to over 2,000,000 eggs per day, making it the largest egg packing plant in the world. The egg is a product which must be kept at a uniform temperature and delivered to the consumer as promptly as possible and at a price to meet the conditions of a highly competitive market. This is achieved by a collection system from thousands of producers throughout Northern California, delivery to the plant in refrigerated trucks of the Cooperative, stored, graded, packed and shipped in refrigerated trucks to the consumer in a period of approximately two days. This requirement of speed is also accompanied by the necessity of careful handling of the product which, as even a child knows, is susceptible to breakage!

The resulting solution of the problem is indicated in

**TYPICAL OFFICE: Acoustical tile ceilings, lots of light, completely air conditioned.**


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*Plumbing and Heating*
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Phone: TH 5-4100

**EMPLOYEE CAFETERIA**

**Pravided far emplayees; averhead acaustical tile, fluarescent lighting, and padded chairs.**

the plans of the building shown in this article. From the receiving dock on the sheltered East side of the building, the pellets move from the trucks on roller conveyors into the In-Cooler, thence to the egg-candling room, where they are candled by trained personnel and move through the machines, designed and manufactured by the Food Machinery Corporation. These machines are equipped with electronic 'memory' units that record the history of every one of the millions of eggs that pass through each day! The packaging materials are brought to a mezzanine platform from the receiving warehouse and fed down convey-


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**AIR CONDITIONING**
**& SHEET METAL**

ON THE

**Plant & Office Poultry Producers**
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**San Leandro, Calif. by**

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ELgin 1-4112

**GENERAL BUSINESS**

**Accounting and general business area; indirect lighting, acoustical ceiling, rubber tile floors.**

ors to the machines. The eggs now packaged according to grade and trade distribution flow on conveyors to the carton packing center, thence to the out-going cooler. From the Out-Cooler the eggs move to the delivery trucks for distribution. Throughout this entire process, the identity of the thousands of farm suppliers is kept, so that each individual can be credited with the sale, according to grade, of his product!

A separate operation is carried out in the egg breaking section, in which the egg meat is packed and stored

(See page 24)


## *TILT-UP CONCRETE for Speed and Efficiency*

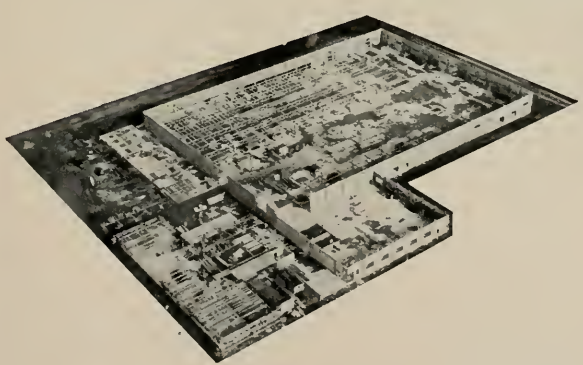

Photo: R. L. COPELAND

**PLANT & OFFICE, POULTRY PRODUCERS OF CENTRAL CALIFORNIA**
**SWINERTON & WALBERG, Contractors**

**RECENT JOBS COMPLETED**

***California Walnut Growers***
Stockton, Calif.
600,000 square feet
Contractors, Utah Contr. Co.

***Dalmo Victor Plant***
Belmont, Calif.
150,000 square feet
Contractor, W. C. Tait

***Southern Pacific Warehouse***
Hayward, Calif.
300,000 square feet
Contractors, Swinerton & Walberg

***Union Oil Warehouse***
Richmond, Calif.
150,000 square feet
Contractor, Baldwin Contr. Co.

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## COSTA RICA PLANNER TO VISIT CALIFORNIA

Costa Rica plans to send its Chief City Planner to Bakersfield and to San Jose, California, to observe recent architecture and city planning. Arquitecto Eduardo Jenkins Doubles, coordinating with the United States through the International Cultural Assistance program will be a guest in Bakersfield and in San Jose sometime during December. It is noted that these two cities are about the size of their city, San Jose, which is the capital of Costa Rica, and that new buildings in these two centers may well be the envy of authorities in the coffee and banana republic to our south, where earthquakes are somewhat of a problem.

**Clarence Cullimore, Jr. Architect**

News of Senor Doubles' appointment to visit Bakersfield and San Jose as places to observe modern planning and design, coupled with earthquake resistance, comes in a letter from the Chief Housing expert of Cost Rica, Edwin H. Hobin, to the Bakerfield architectural firm of Kenney and Cullimore Jr. who have extended professional courtesies to the Costa Rican architects.

The United States agency which Senor Doubles represents in Costa Rica is helping to show the people of that republic and its government officials how they can solve their problems of better city planning by the experience gained in other American countries with similar problems. Senor Doubles, in speaking of Intercultural Assistance, makes it clear that the function of its activities for technical assistance is to stimulate cultural as well as economic considerations, helping to

(See Page ♦)

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## NEWLY COMPLETED SHEET METAL PLANT

### WALNUT CREEK CALIFORNIA

California leads the nation in residential construction with more than $807-million dollars in new contracts during the first five months, and in addition shows continuous increases in commercial and industrial construction since the first of the year.

Among firms that have expanded their manufacturing plant, sales and service facilities to take advantage of this record construction and subsequent population growth is the Walnut Creek Sheet Metal and Furnace Company, which according to Louis P. Very, president, "has recently completed a new 24,000 sq. ft. area manufacturing plant."

Located in Walnut Creek, the new plant is a modern one-story concrete and corrugated iron building representing one of the largest and newest sheet metal plants in Northern and Central California. Complete facilities are provided for the firm's specializing in heating, air cooling, large and small furnaces, and sheet metal work, and a working force of some 90 employees. Howard E. Burke, vice president and general manager, and Arthur W. Foster, chief estimator are active in the firm which has completed major contracts for the University of California, Atomic Energy Commission, Camp Parks, Concord Shopping Center, and the $1,000,000 Poultry Products project in San Leandro.

make Costa Rica better able to resist subversive propaganda. He states that the problem is not to give financial aid to Costa Rica or to any group within the country; nor does it engage in actual construction, but is prepared to promote and furnish technical assistance and advice that will prove beneficial when projects are in the initial planning stages. It is hoped that, through Mr. Hoben's direction and through the observation that Senor Doubles will make in Bakersfield and San Jose, California, a better understanding may be promoted between officials there and here. The City of Bakersfield, through its Mayor Sullivan, has extended an invitation to Senor Doubles to be the guest of that city while making his study.

Architect C. Cullimore Jr., referring to Senor Doubles' forthcoming visit, states that "California architects are concerned with the gradual improvement, on a long term basis, of its communities, as well as those of Costa Rica, and that the rapidity with which this idea is taking hold is gratifying. The important thing," he adds, "is that citizens, for whom the planning is done, see its necessity and urge their government to cooperate; for with the lusty support of the man-about-town great accomplishments are possible."

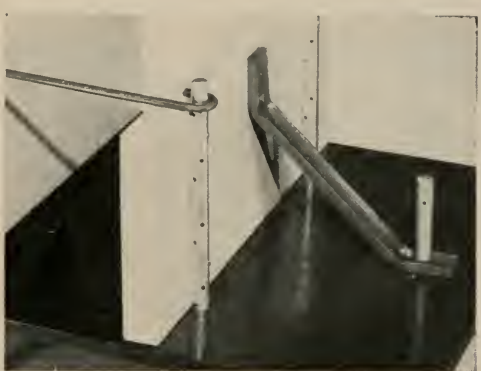
*Photos Courtesy C&H Specialities Company*

# Sub-Division Development

## DANVILLE, CALIFORNIA

The West, and particularly the West Coast, is recognized throughout the nation's vast construction industry as the area for development of many innovations in time and labor saving devices and methods used in construction of all type of buildings.

One of the more common problems in light construction of foundations, footings, surbs, sidewalks,



**DETAILS of bracket and base ties.**

gutters and driveways, and many other similar instances, is the use of a product and material that adequately serves the purpose at the time, and yet is easily removed and can be re-used indefinitely on other jobs.

In planning for the construction and development of a substantial residential sub-division on Mt. Diablo Boulevard in Danville, California, the building contractor decided to use a group of new products manufactured in Berkeley, California, which would represent a considerable saving in labor and materials in the initial installation, and which could be easily removed following pouring of concrete and reused time-after-time on the same project in construction of many house foundations.

The accompanying illustration shows the foundation forms in place ready for pouring concrete, using a newly devised "spreader hook" to hold the side partitions in place for accurate wall widths, while a newly developed "form brace" on the outside provides accurate alignment and rigidly supports and braces the framework. The "spreader hook" is being used in conjunction with a special "construction stake" of heavy steel, which also provides a practical construction tool for many purposes. The contractor found that use of these products leaves the work area clean and easily accessible from all directions.

## CHURCH IS MOVED

(From page 15)

only be considered at the Narthex (west) end, any change to the Chancel and Sanctuary being quickly discarded. The setback from El Camino Real to the west end Narthex wall was 175 feet so that some loss here would not be serious. Lengthening the Nave 30 feet (two typical bays of 15 feet each) architecturally was most appropriate.

Many studies were made as to materials, costs, and methods, to attain the increased length. Careful removal of the Narthex with its north and south vestibules, porte cochere, grand traceried stone and stained glass west window, and rebuilding same was carefully considered, but costs were excessive. Furthermore, the most careful stone by stone removal (which has masonry back-up) would be most difficult.

We then hit upon the idea of slicing through the Nave at the connection to the Narthex, moving the Narthex 30 feet westerly and filling in the thirty foot gap with two new bays, exactly matching the existing bays.

We consulted with our engineers, and with D. J. & T. Sullivan, movers. After very careful research, the conclusion was reached that this was feasible and the method would be this: Excavate completely in the path of the move to a depth of three feet below the bottom of existing foundation (approximately 10 feet below Nave floor). Construct new foundations below this level. Excavate completely within the Narthex to the same depth. Cut existing foundations, install supporting needle beams and support the structure on a steel grillage. Install a parallel system of heavy steel beams which would equally distribute the load and on which steel rollers would ride the structure to the new position. Underpin the old foundations, remove steel grillage and backfill.

The project was drawn, specified and competitively bid upon, along with a Church School Addition, another phase of the project.

The method above described, of course, oversimplifies the work and all of the details involving borings, differential settlement, actual moving by jacks, leveling and support of distribution roller beams, are numerous and detailed.

The construction of the new Nave addition will start in thirty days after the Narthex move. At that time the moved structure will have settled one inch and be level with the original fixed church, this settlement having been allowed for.

## POULTRY PRODUCERS

(From page 21)

in a freezer maintained at 0° F. Egg shells are disposed of in a large Incinerator located in this area.

Poultry Producers carry on a large operation in the sale of farm supplies and equipment which come to the plant by rail and truck, and are distributed to the ranchers in the Cooperative's line haul trucks.

A complete printing plant in operated in the building, and produces amongst other items, Nu-Laid News published monthly and distributed to the thousands of egg producer members of the cooperative.

A close-knit team under the direction of Ralph W. Jenson of J. Francis Ward's office, comprised of Stanley G. McIntyre, Industrial Engineer; Thomas F. Chace and Associates, Structural Engineer; Bayha, Weir & Finato, Mechanical and Electrical Engineers; has met all the requirements of the foregoing in the design of a building which has been reduced to its simplest elements.

The total area of the project is 225,000 square feet and is divided into the following overall functions. The plant, including coolers and candling room, 110,000 sq. ft.; trucking and warehouse area, 50,000 sq. ft.; repair garage, 8,000 sq. ft.; Records, Print Shop, Sales and Cafeteria, 30,000 sq. ft.; Central offices, 30,000 sq. ft. Of the 15 acres acquired, the fully developed area is 12 acres, broken down into buildings 5 acres, paved areas 6 acres, and landscaping 1 acre.

The entire floor is set at truck and freight car loading height. In general the construction of the plant, warehouse and wings is of tilt-up construction, with strap and pin wood trusses (on steel columns), plywood roof decking and reinforced concrete floor slab on engineered fill. The office section is of steel construction with wood roof decking and masonry, aluminum

and porcelain metal walls.

The egg candling rooms and coolers are completely finished with plaster over fiberglass insulation, and together with freezer and other elements meet all the requirements for a food packing plant.

All the principal offices are finished with walls of flush hardwood veneer, vinyl-asbestos flooring, acoustic tile and illuminated plastic ceilings. Toilets and rest rooms have terrazzo floors, ceramic tile walls and metal partitions.

A fully equipped Cafeteria has been provided to serve the two hundred and fifty empoyees and a sheltered landscaped patio adjoins this facility for their use.

The plant is windowless and illuminated in general with localized fluorescent fixtures: incandescent in warehouse. The office area ceilings are largely of illuminated plastic panels in conjunction with acoustic tile or plaster. Intensities range from 10 foot candles in warehouse to 60 foot candles in the offices.

The entire building areas are protected with an automatic sprinkler system.

The offices are summer and winter air conditioned, with mechanical refrigeration in summer and hot water heating in winter combined with ventilation, all zone controlled. Coolers and candling room have year around air conditioning combined with mechanical ventilation to maintain uniform minimum working conditions.

The General Contractor is Swinerton & Walberg and the work was carried out under the direction of Dwight B. Gladstone of the Oakland office. Commencing work in November 1956 the contractors were able to complete the contract within ten months. Separate contracts were performed by Scott Company for Refrigeration, Allan Automatic Sprinkler Company for Sprinkler System, Fencing, Cyclone Fence Co., Paving and Street Work, J. W. Lee. The landscaping under direction of Landscape Architect was performed by Rudolph Watson.

# Transit and Transport To Marin County

## A PART OF THE BAY AREA RAPID TRANSIT REPORT

## PART I

By GEORGE S. HILL
Consulting Engineer

### ALTERNATIVE METHODS

Engineering, financial, and legislative studies provide for including Marin County in the Bay Area Rapid Transit System.

The engineering report suggests changes in the Golden Gate Bridge at a cost of $12,000,000, for carrying trains. The report enumerates several alternatives to the Golden Gate Bridge route as follows: "Accessibility to Marin and Sonoma Counties is the primary consideration in studying the methods and routes for crossing the Golden Gate or the Bay. Only two methods can be considered, either a bridge over the water or a tunnel under the Bay.

The most feasible location for a bridge is in the vicinity of the present Golden Gate Bridge; either a new parallel bridge could be constructed or the present bridge could be utilized. An alternate bridge location is on a line beginning on the Tibourn Peninsula and crossing to Angel Island to Alcatraz to a landing in San Francisco.

The California State Legislature has authorized a study for a bridge in this approximate location by the Division of San Francisco Bay Toll Crossings of the California State Department of Public Works. This study will consider providing space and structure to accommodate rapid transit loads. If this project is shown to be feasible from the standpoint of cost and engineering it is suggested that full consideration be given to routing the Marin Line over this structure in lieu of the present proposal to utilize the Golden Gate Bridge."

Although the engineering report dismisses the subject of a sub-aqueous tube as being too costly, it is believed that for obvious reasons this should be explored further as discussed in this article.

### THE GOLDEN GATE BRIDGE

The Golden Gate Bridge cost $35,000,000 but if built today it would cost about three times as much. There still remained after 19 years, $28,000,000 of unpaid bonds, and these are non-callable until maturity in 1970, so the interest will be $15,000,000 additional. The company has earned $12,000,000 in order to meet these obligations.

The Golden Gate Bridge and Highway District consists of six counties: San Francisco, Marin, Sonoma, Napa, Mendocino, and Del Norte, and in case of failure such as that which happened to the Tacoma Narrows Bridge, the taxpayers would be required to make up any loss not coverable by insurance. San Francisco would pay 85% of such loss.

The improvement clubs of San Francisco have a sort of proprietary interest in the Golden Gate Bridge, and without their support, particularly that of eight clubs known as the Divisional Highway Association, it is doubtful if the bridge would have been built. Its main span of 4200 feet is the world's longest. This will soon be exceeded by one from Staten Island to Brooklyn over the Narrows of New York Harbor, and possibly by one over Messina Straits. The bridge has not yet attained its full capacity and could not be expected to do so for many years. Therefore there is no present need for a second bridge.

(To be continued next month)

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### COAST VALLEYS CHAPTER

Howard DeWeese of Pomona Tile was host of the October meeting in Hal's Restaurant, Palo Alto.

A number of members attended a seminar October 17 at the Engineers Building, San Jose State College, sponsored by the American Society of Civil Engineering. Under direction of Dr. W. W. Lorell the subjects of Plastic Design, Description of Prestressed Concrete—Basic concepts and potential uses, and Shell Design—Basic concepts and potential uses, were considered.

### PASADENA CHAPTER

Vincent Bush of the Pacific Coast Higher Rating Bureau presented an illustrated lecture on the recent earthquake damage in Mexico City at the October meeting, Eaton's Restaurant in Arcadia. Bush recently returned from a personal inspection tour of the quake area and obtained much information.

Thornton Ladd, Richard R. Letich and the architectural firm of Smith & Williams, were among 1957 winners in the Western Home Awards program, sponsored jointly by the American Institute of Architects and Sunset Magazine.

New Members include George L. Foy, James H. Maul and Melford C. Morgan, all Corporate Members.

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San Francisco Architectural Club:

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Producers' Council—Southern California Chapter:

Clay T. Snider, President, Minneapolis-Honeywell Regulator Co., LA.; E. J. Lawson, Vice-President, Aluminum Company of America, L.A.; E. Phil Filsinger, Secretary, Gladding, McBean & Co., L.A.; William G. Aspy, Treasurer, H. H. Robertson Co., L.A.; Henry E. North, Jr., National Director, Arcadia Metal Products, L.A.; Office of the Secy., 2901 Los Feliz Blvd.

Producers' Council—Northern California Chapter:

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Producers' Council—San Diego Chapter:

Eugene E. Bean, President, Fenestra Inc.; ames I. Hayes, Vice-President, Westinghouse Electric Co.; E. K. Shelby, Secretary, The Celotex Corp. (El Cajon); Joseph C. Langley, Treasurer, Republic Steel Corp'n, Truscon Steel Div. (Lemon Grove). Office of Secty., 1832 Wedgemere Rd., El Cajon.

Construction Specifications Institute—Los Angeles:

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Construction Specifications Institute—San Francisco:

Henry C. Collins, President; Leonard M. Tivel, Vice-President; Leonard P. Grover, Treasurer; Marvin E. Hirchert, Secretary. Office of Secty., 585 Whitewood Drive, San Rafael.

## SAN FRANCISCO ARCHITECTURAL CLUB

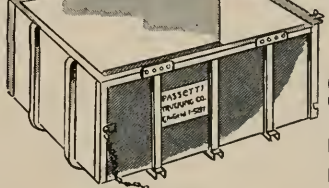
A Field Trip was conducted on October 18th through the Soule Steel Company plant in San Francisco. Following inspection of the plant and manufacturing facilities, a dinner was served by the Soule company.

Earl W. Smith, East Bay builder and contractor, was the featured speaker at a recent meeting, discussing his experiences and observations of Russia's construction industry obtained during a trip to the USSR.

## WASHINGTON STATE CHAPTER

"Italy — Observations and Illustrations" was the subject of a program in the Benjamin Franklin Hotel, Seattle, this month with Fred Bassetti the speaker.

Recent new members include: Kenneth E. Koehler, Dan F. Miller and George E. Wrede, Corporate; Stanley V. Sandberg, Associate; and Dean Dwyer Davidson, Gudmund B. Berge and George R. Simpson, Junior Associates.

# WITH THE ENGINEERS

Structural Engineers Association of California

Henry M. Layne, President; Howard A. Schirmer, Vice-President; H. L. Manley, Secy.-Treas. Directors—Chas. De Maria, Wesley T. Hayes, Henry M. Layne, H. L. Mamle, J. G. Middleton, J. F. Meehan, Clarence E. Rinne, A. A. Sauer, Howard A. Schirmer, and William T. Wheeler. Office of Secty., 9020 Balcom Ave., Northridge, Calif.

Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Howard A. Schirmer, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

J. F. Meehan, President (Sacramento); A. L. Brinckman, Vice-President (Sacramento); W. F. Pond, Secy.-Treas. Directors: A. L. Brinckman, J. J. Doody, H. C. Green, J. F. Meehan, E. F. Zancai. Office of Secy., 7045 Cromwell Way, Sacramento.

Structural Engineers Association of Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 2808 W. Temple St., Los Angeles 26. DUnkirk 5-4424.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

Six short talks in the field of soil mechanics featured the October meeting held in the Roger Young Auditorium, Los Angeles. Taking part in the talks were Fred Converse speaking on "Construction of Deep Foundations," LeRoy Crandall, "Foundations for Tall Buildings in Downtown Los Angeles," L. T. Evans, "Pacific Palisades Landslide," Charles Howe, "Field Sampling," William Altmeyer, "Portuguese Bend Landslide," and V. A. Smoots on "Moisture Protection." Some of the talks were illustrated with slides.

Recently announced new members include: Henry W. S. Chi, Harry F. Deardorff, Howard V. Mouw, William M. Simpson and Woodward Tom, MEMBERS: Robert L. Gray, John F. Lewis, James W. Pereira and Ralph H. Shankland, Jr., ASSOCIATES; and Charles E. Reid-Selth ALLIED.

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## AMERICAN SOCIETY CIVIL ENGINEERS

Louis R. Howson of Chicago, has been elected president of The American Society of Civil Engineers, succeeding Mason G. Lockwood of Houston, Texas.

Other officers elected and installed at the annual meeting this month in New York City included Samuel B. Morris of Los Angeles, former General Manager of the City of Los Angeles Department of Water and Power and a consulting engineer, Vice-President; John E. Rinne, San Francisco, Engineer, Standard Oil Company of California was named a Director.

## STRUCTURAL ENGINEERS ASSOCIATION OF NORTHERN CALIFORNIA

Members chartered a United Air Lines Convair to San Diego to attend the 1957 SEA Convention this month.

The regular October meeting was a joint meeting with the East Bay Structural Engineers Society in the Claremont Hotel, Berkeley, with the program being devoted to a general discussion of "Structural Applications of Aluminum." Speakers included R. E. Knight, vice-president, Research and Development; D. G. LaRue, manager, West Coast Branch, Product Development; D. L. Richter, staff Design Engineer, all of the Kaiser Aluminum and Chemical Corporation. The aluminum industry's contributions to the structural engineer through research and development, heavy welded aluminum structures, and design and construction of space frames were discussed.

American Society of Civil Engineers
Los Angeles Section
George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa Barbara Counties Branch, Robert L. Ryun, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section
H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch
Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of Oregon
Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)
R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District
H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy., c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military Engineers—San Francisco Post
Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

The November meeting will be a Joint meeting with the North American Society of Military Engineers in the Presidio Officers Club, November 14th, at which time the recent Mexico City earthquake will be discussed.

Recent new members include Samuel P. Laverty, Civil Engineer; and Leonard F. Robinson, Partner; Myron Goldsmith and William F. Spenny, Affiliates.

## AMERICAN SOCIETY OF CIVIL ENGINEERS SAN FRANCISCO SECTION

"New Projects in Prestressed Concrete" was the subject of the October meeting held in the Engineers Club, San Francisco, with Ben C. Gerwick, Jr., and Professor T. Y. Lin discussing various aspects of the construction and design of prestressed concrete projects, both foreign and domestic.

Prof. Linn, University of California at Berkeley, was chairman of the recent World Conference on Prestressed Concrete, emphasized design considerations, while Gerwick, Jr., discussed construction methods.

## EAST BAY STRUCTURAL ENGINEERS ASSOCIATION

Ray H. McCann of the Basalt Rock Company, Napa, was the principal speaker at the October meeting held in the Villa de la Paix, Oakland, discussing "Reinforced Masonry Construction."

## SOCIETY OF AMERICAN MILITARY ENGRS. SAN FRANCISCO POST

"Mobility in Modern Warfare" was the subject of a talk by Major General Emerson C. Itschner, Chief of Army Engineers, at the October meeting in the Presido Officers Club, San Francisco.

General Itschner has served as Chief of the Army's fighting-building Corps of Engineers during the past year, and as such heads an organization with a record of service dating back 182 years and now faces military construction in the modern nuclear age. A number of colored slides were also shown. General Itschner is also first president of the national Society of American Military Engineers.

## AMERICAN SOCIETY OF CIVIL ENGINEERS LOS ANGELES SECTION

The annual Ladies' Night Dinner Dance will be observed on November 9th in the Bali Room of the Beverly Hilton Hotel, Beverly Hills, featuring the music of Manny Harmon and His Orchestra, and a breast of chicken "Montmorency" dinner.

## FIELD HOUSE

(From page 11)

were used to join the cantilevered beams to reinforced concrete pilasters in the sidewalls.

The auditorium is a friendly meeting place for the neighborhood where plays, contatas, musicals and public gatherings can be accommodated. It is well equipped with stage and dressing rooms and additional small meeting rooms. Smaller glulam beams were used most effectively in this structure. To create an atmosphere of informality and warmth, the architects utilized the natural textures of western woods wherever possible. Exposed beams and decking make up the ceiling, and a full wall of western red cedar makes for informality.

Large steel sleeves over the tie rods protect against moisture and vandalism and give an interesting appearance to that area of the building.

The buildings were designed for the toughest possible usage as only exuberant youth can deal out. Ceramic tile was installed in the shower rooms and toilets. The floors in the auditorium are hardwood and a double spring floor was put down in the gymnasium.

The roof lines of the two buildings were kept low to harmonize with the surrounding low hills.

There is some similarity between the basic design features of the gymnasium and the auditorium. The roof lines of both buildings match, with a long and short span, but there is a conventional peak ridge line to the auditorium with the two unequal spans joined. However, the long span of the auditorium is also cantilevered, resting on inverted buttresses which form part of the reinforcing ribs of the concrete wall along the outside of the auditorium building. The glulam beams supporting the long auditorium span are 41 feet 10½ inches long and cover, in addition to one half of the auditorium, a row of meeting and dressing rooms alongside the auditorium proper.

The Upper Noe playground buildings are remarkable because of the several striking innovations in design and structural concept. The architects utilized fully the wide flexibility of fabricated timber beams which can be factory built to virtually any size and shape to create highly functional structures of unusual charm and distinction.

Cost of the entire project averaged $22.87 per square foot.General contractors were James I. Barnes of Redwood City, California.

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WILLIAM GEORGE BARR, Executive Director of the National Parking Association was the featured speaker at the October meeting of the Northern California Chapter A.I.A., co-sponsored by the San Francisco Planning and Housing Association.

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### ARCHITECT SELECTED

Architect Leslie I. Nichols, 454 Forest Avenue, Palo Alto, has been commissioned by the Metropolitan Life Insurance Company, San Francisco, to design a 1-story Office Building to be built in the Sunnyvale Civic Center.

The building will contain 45,000 sq. ft. of area.

### LANDSCAPE ARCHITECTS VISIT MODEL HOMES

Fifty members of the California Institute of Landscape Architects and their wives were recent guests at the Highland House, furnished model residence at Beverly Highlands in Beverly Hills.

Landscape Architect Peter Engelmann, who co-ordinated the landscape work at Highland House, was host to the group headed by Bennett Covert, Los Angeles and State president of the Institute, and Gustav J. Molnar, president of the San Diego Chapter.

Highland House has 3,000 sq. ft. of living space under roof, patio terrace, garden, carport and swimming pool.

### NEW STUDENT CENTER PLANNED

Architect Vernon De Mars, Berkeley and the architectural firm of Donald L. Hardison & Associates, 160 Broadway, Richmond, are preparing plans and drawings for construction of a new $10,000,000 Student Center building to be built on the University of California campus in Berkeley.

The work calls for the removal of a number of buildings on the site as well as construction of the new facilities.

## ARCHITECTS OPEN LAS VEGAS BRANCH

Adrian Wilson & Associates, architects and engineers, Los Angeles, have announced the opening of permanent offices in Las Vegas, Nevada, which will be in charge of Richard Drayton, who has been associated with the firm for many years.

Wilson said the new offices would facilitate completion of the Las Vegas Convention Center, plans for which are now under contract negotiations, and other development in the area.

The firm also maintains offices in Japan, the Philipines, San Francisco, and headquarters in Los Angeles.

## NORMAN TISHMAN GIVEN 1957 CITY OF HOPE AWARD

Norman Tishman, president of the Tishman Realty & Construction Co. Inc., has been named to receive the 1957 City of Hope Award, given annually to an industry leader for outstanding humanitarian activities, it has been announced by Benjamin J. Goodman, Los Angeles, president of the Medical Center Aides, Los Angeles auxiliary of the City of Hope National Medical Center.

The nationally known firm which Tishman heads has built more than 55 residential and commercial buildings, representing an investment of more than $300 million, since it was founded in 1898. The company has expanded considerably in the Los Angeles area in recent years completing five air-conditioned office buildings on Wilshire Blvd., and now has under construction a 14-story luxury cooperative apartment building on Wilshire Blvd.

Among the company's current projects are a 38-story office building in New York City; a 21-story office building in downtown Cleveland; and a 20-story office skyscraper in Buffalo.

## NAHB EXECUTIVE OFFICERS COUNCIL ELECTS DANSYEAR

S. A. Dansyear of Miami, Florida, has been elected president of the National Association of Home Builders' Executive Officers' Council, at the annual meeting of the group recently held in San Mateo, California.

Dansyear, executive secretary of the Home Builders Association of South Florida for the past five years, succeeds John R. Downs of Chicago.

Other officers elected included: Richard E. Doyle, San Francisco, 1st vice president.

The Executive Officers' Council is composed of trade association executives of the 292 home building organizations affiliated with the NAHB.

## CLINTON C. STEWARD JOINS HOLMES & NARVER INC.

Clinton C. Steward, widely known oil refining engineer, has been named assistant manager in charge of engineering and process of the Petro-Chemical division of Holmes & Narver Inc., Los Angeles engineers and constructors, according to James T. Holmes, president of the firm.

Steward was formerly chief engineer of The Ralph M. Parsons Company.

## STROMBERG-CARLSON BUILDS SAN DIEGO ENGINEERING

Construction has started on a new engineering department building at the main plant of Stromberg-Carlson, San Diego, according to an announcement by Harold P. Field, manager.

The new building will increase space at the plant by 50 per cent and will bring the total plant, office and laboratory space of the division of General Dynamics in San Diego to 52,000 sq. ft.

Architects for the new building are Frank L. Hope and Associates, San Diego.

## ENGINEERING FIRM EXPANDS

John A. Blume, prominent West Coast engineer, has announced the expansion of engineering offices to new and larger quarters, and changing of the firm name to John A. Blume & Associates, Engineers.

The new offices are located at 612 Howard St., San Francisco.

Engineering officers of the firm include John A. Blume, H. J. Sexton, J. P. Nicoletti, R. L. Sharpe, D. M. Teixeira, and A. I. Flaherty.

## AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

The American Institute of Timber Construction will hold its sixth annual meeting in January 20-24, 1958, at the San Marcos Hotel, Chandler, Arizona, according to an announcement by Val Gardner, Springfield, Oregon, president of the Institute.

Theme of the conference will be "Sales —Today and Tomorrow."


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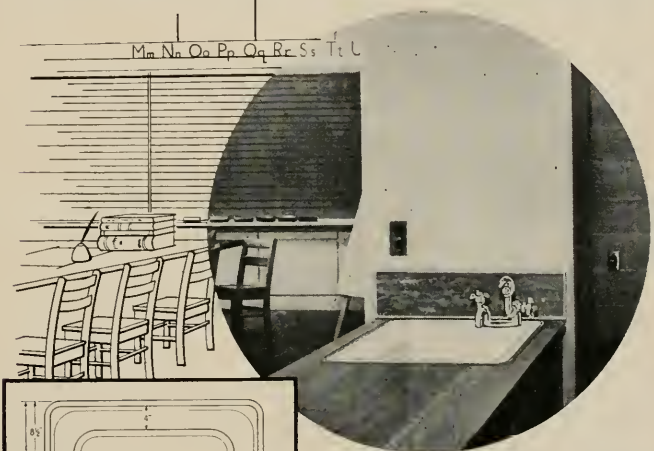


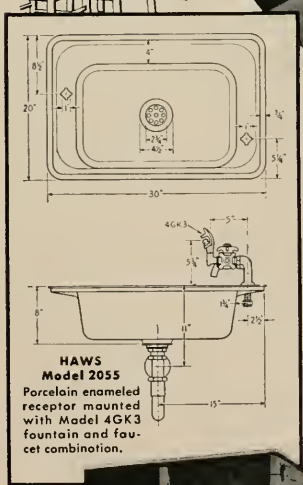


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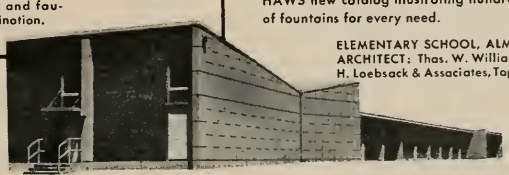

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## CONVAIR WAREHOUSE

(From page 13)

the exterior walls and roof, tilt-up concrete walls were of course considered. They had to be discarded in favor of the more quickly erected 90-foot-span prefabricated steel buildings.

In designing the 800-foot craneways it was found that long fabrication time was needed for making steel girders and columns made steel prohibitive. So prestressed concrete girders and pre-cast concrete columns were specified in order to meet the tight construction schedule. This, to our knowledge, is the first time concrete beams have been used to support overhead cranes.

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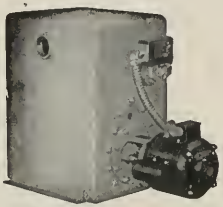

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The bearing problems were solved by using large spread footings for the heavy crane loads.

Grading began on December 11, and by January 22 of this year, concrete was being poured for footings. On March 11 the first 200,000 sq. ft. section of the building was finished and immediately put to use. The second 200,000 sq. ft. section was completed June 1.

Meanwhile, 300,000 cu. yds. of earth had been excavated for a one-mile access road leading to the highway, and a railroad spur of the same length had been built for rail shipments. An area of 500,000 sq. ft. around the buildings had been prepared for paving. In addition, 300 lineal feet of retaining wall had been constructed around the perimiter of the warehouse to raise the building floor to truck bed height.

Inside the warehouse, a 50,000 sq. ft. area of office space was partitioned off, with gypsum board on wood framing being used. The entire enclosed space, the equivalent of 16 football fields laid side-by-side, was supplied with gas-fired suspended space heaters.

And on September 6, 1957, the final 100,000 sq. ft. area of the $4,000,000.00 project was finished and put to use. Architects, engineers and builders had reason for mutual congratulation. For the race against time had been won with four months to spare.

## ARTHUR P. McARTHUR NAMED BY GLADDING, McBEAN & CO.

The appointment of Arthur P. McArthur to the position of general sales manager, Architectural Division, Northern California, for Gladding, McBean & Company, has been announced by Verne W. Boget, vice president and general manager, Architectural Division, of Gladding, McBean & Company.

ARTHUR P. McARTHUR
Sales Manager

In his new position McArthur will be responsible for directing the sale of ceramic veneer, glazed structural units, roof tile, facebrick, Hermosa glazed floor and wall tile and other architectural products. He will also have charge of Public Relations in the Northern California area.

McArthur formerly served as assistant sales manager of Architectural Products for the firm's Pacific Northwest Division with headquarters in Seattle.

PICTURE CREDITS: *Phil Fein, Photos, Page 8, 9, 10, 11; Busco-Nestor, Photo, Page 12, 13; Donald Beach Kirby and Associates, Architects, Page 8, 9, 10, 11; Richard George Wheeler & Associates, Architects, Page 12, 13; Ted Brooks Photo, Page 14, 15; Geoff Cook, Photo, Page 16, 17; R. L. Copeland Photo, Page 18, 19, 20, 21, 22, 23; Ted Gurney, Page 24; J. Francis Ward, Architect, Page 18, 19, 20, 21, 22, 23; Swinerton & Walberg General Contractors, Page 20; Thomas M. Livingstone Photo, Page 25.*

# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**PLANNING FUNCTIONAL SCHOOL BUILDINGS. By Merle R. Sumption and Jack L. Landes. Harper & Brothers, 49 E. 33rd St., New York 16. 302 pages. Price $7.50.**

Here is a guide to the development of functional school buildings in which the authors Merle R. Sumption, Director of Field Services, College of Education, University of Illinois, and Jack L. Landes, School Building Specialist with the Cincinnati Public Schools, concentrate on the planning of physical facilities suited to a specific educational program which is, in turn, dictated by the needs of individual communities. Since schools serve the community, it is only logical, the authors believe, to enlist the aid of the community in planning for school construction, thus the book is valuable to school administrators, school plant consultants, architects, engineers, and contractors.

**THE TEMPLE OF JERUSALEM. By Andre Parrot. Philosophical Library, Inc., 15 E. 40th St., New York 16. 112 pages. Price $2.75.**

The author is Curator-in-chief of the French National Museum, Professor at the Ecole du Louvre, Paris, Director of the Mari Archaeological Expedition, and presents in this book an enthralling account of the first Temple at Jerusalem built by Solomon, the rebuilt Temple, and the Moslem Haram esh-Sherif which now stand on the site. A wealth of interesting archaeological and historical detail is presented.

**AIR CONDITIONING. By Willis R. Woolrich and Willis R. Woolrich, Jr. The Ronald Press Company Publishers. 15 E. 26th St., New York 10, N. Y. Price $7.50.**

An authoritative textbook designed for college course at the senior or junior level; is broad in scope and emphasis on fundamentals gives the reader a complete introduction to all aspects of air conditioning, including heating, ventilation, air purification, and cooling. The book explains and analyzes all the traditional problems of domestic and commercial heating; also fully presents the problems of cooling in hot-dry and hot-humid climates, clearly showing how psychrometric processes, radiant cooling, and the available means of refrigeration are applied to the solution of these problems. Contains many illustrative examples and each chapter closes with a generous selection of text-related problem material drawn from the authors' extensive professional experiences. The authors: Willis R. Woolrich, Dean of Engineering and Prof. Mechanical Engineering, University of Texas, and Willis R. Woolrich, Jr., Consulting Engineer in Refrigeration and Air Conditioning.

**BUILDERS' HARDWARE HANDBOOK. By Adon H. Brownell, A.H.C. Hardware Age-Chilton Co., Philadelphia. 234 pages.**

This well illustrated book covers such subjects as products, metals, finishes, scheduling, blue print reading, sales and service, specifications, quoting, in simple, understandable language. Detailing lock founctions, protection and safety factors involved the author has described and pictured standard hardware items and illustrates the special function of hardware for various types of building such as hospitals, schools, architects, engineers, contractors, teachers and students, contractors and maintenance will find this book valuable.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Architect's Guide.** New booklet is now available for distribution; covers chemically preserved and fire retardant pressure-treated wood; covers such topics as Wood Destroyers, Remedial Action, Treatments, Specifications and Recommendations. Copy available free, write DEPT-A&E, Western Wood Preserving Operators' Association, 1410 S. W. Morrison St., Portland, Oregon.

**Sash balances for double hung windows.** A new 4-page brochure, using pictures and diagrams, describes a new in-

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vention in the field of sash balances for double-hung windows; Installation views are shown and complete description of how to attach balances is listed beside each detail drawing; easy to install and operate, with approximately equal force required for upward and downward fovement. Free copy write DEPT-A&E, G A R Industries Inc., 9241 Edmund St., Philadelphia 14, Penn.

**Design Manual—Welded Wire Fabric—For Building Construction.** New 46-page book (AIA File No. 4-E-2) gives detailed information on reinforced concrete construction; revised edition to correspond with latest edition of American Concrete Institute's "Building Code Requirements for Reinforced Concrete" and "Specifications for Welded Steel Wire Fabric for Concrete Reinforcements." Many pictures, diagrams, tables and design data valuable to engineers, architects, designers and students. Free copy write DEPT-A&E, 1049 National Press Bldg., Washington, D. C.

**Lawn Sprinkler Systems for Profit.** New brochure reveals how a host of new engineering and material developments brings an effective lawn sprinkling system within the economic means of most income groups; discloses actual dealer earnings, profits, franchise arrangements, sell, and install; describes various types of systems available and where each is best used. Write for copy DEPT-A&E, Texas Lawn Sprinkler Co. Inc., 5422 Redfield, Dallas.

**Western Red Cedar Lumber—grades and uses.** New, complete booklet (AIA File No. 19-A-1) 36 pages, profusely illustrated and describes in detail the wide range of Western red cedar uses and grades; full-page illustrations show representative samples of various Bevel Siding grades, Board and Finish, and Paneling grades; designed for the use of architects, building officials, engineers, contractors. Free copy write DEPT-A&E, West Coast Lumbermen's Association, 1410 S. W. Morrison, Portland 5, Oregon.

**Motion detection instrument.** New, 4-page brochure gives details on radar burglar alarm system for factories, stores, offices, warehouses and homes; employs electronic serial rada-search principle, used by planes and ships to detect obstacles in darkness or storm; gives positive protection to an entire cubic space. Free copy write DEPT-A&E, Sullivan Sales Co., 1605 Solano Ave., Berkeley 5.

**Rust prevention system.** New brochure (AIA FILE NO. 25-B-33, 25-B-241) outlines applications and advantages of The Sonneborn Rust Prevention Systems; tells how coatings provide greater durability and elasticity in contact with corrosive elements; results of adhesion, immersion, fume, electrolytic breakdown, accelerated weatherometer, and field performance tests are given; complete specifications, and detailed, technical data. Free copy write DEPT-A&E, L. Sonneborn Sons, Inc., 404 Fourth Ave., New York 16.

**Construction and maintenance specialties.** 108 page, authoritative handbook issued in celebration of 60th Anniversary; full of valuable information, references, this Horn Construction Data Book contains 3 indexes, over 30 construction tables, guides and time saving charts, along witth brief outline of use, application and coverage of over 95 construction and maintenance specialties. Free copy write DEPT-A&E, A. C. Horn Co., subsidiary Sun Chemical Corp'n, 252 Townsend St., San Francisco 7.

**ARCHITECTS & ENGINEERS...**

THE SUPPLIERS QUANTITY SURVEY SERVICE—a new LeRoy service—furnishes quantity surveys to suppliers of construction products that enable them to submit bids on your projects WITHOUT the need of your plans.

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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 4% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

Common Brick—Per 1 M laid—$175.00 up (according to class of work).
Face Brick—Per 1 M laid—$265.00 and up (according to class of work).
Brick Steps—$2.75 per lin. ft. & up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
Common Brick—$46.00 per M truckload lots, delivered.
"Bricketts" (Brick Veneer) per M, f.o.b. Niles, $50.00.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 12 Furring | $1.95 per sq. ft. |
| 4 x 6 x 12 Partition | 2.25 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.50 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.
Fire Brick—Per M—$165.00 to $185.00. Cartage—Approx. $10.00 per M. Paving—$75.00.

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| Brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb. | 5.05 |
| Asphalt roofing, 15-lbs. | 2.70 |
| Asphalt roofing, 30-lbs. | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 4.00 |
| **Sand—** | | |
| Lapis (Nos. 2 &4) | 3.95 | 4.70 |
| Olympia (Nos. 1 & 2) | 3.50 | 4.00 |

**Cement—**

Common (all brands, paper sacks), Per Sack, small quantity (paper) $1.30
Carload lots, in bulk, per bbl. 4.14
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L. 2%
Trinity White, Medusa White — 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk $14.80
Curing Compound, clear, drums, per gal. .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | — | .67 |

| Aggregates—Haydite or Basalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd. | $5.85 | $7.75 |
| ⅜-inch to ¼-inch, per cu. yd. | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd. | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $13.00 per square and up.
Hot coating work, $5.50 per square & up.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.
Anhi Hydro, 50 gal., $2.20.

### ELECTRIC WIRING—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.50 per sq. ft.
Terazzo Steps—$3.75 per lin. ft.
Mastic Wear Coat—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | ⅝x2¼ $ | ½x2 $ | ⅜x2 $ | Ax2 $ |
|---|---|---|---|---|
| Clear Otd., White | $425 | $405 | | |
| Clear Otd., Red | 405 | 380 | | |
| Select Otd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| 33/32 x 2¼ | 390.00 | 381.00 |
| 33/32 x 2¾ | 375.00 | 355.00 |
| 33/32 x 3¼ | 395.00 | 375.00 |
| 33/32 x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| 25/32 x 2¼ First Grade | $390.00 |
| 25/32 x 2¼ 2nd Grade | 365.00 |
| 25/32 x 2¼ 2nd & Btr. Grade | 375.00 |
| 25/32 x 2¼ 3rd Grade | 240.00 |
| 33/32 x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| 33/32 x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .60 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.80 per □ ft. |
| 75 to 100 | 2.10 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.70 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| 7/32 in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft |
| 7/32 in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| 7/32 in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| 7/32 in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

**Furnaces—Gas Fired**

| | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |

**Water Heaters—5-year guarantee**

| | |
|---|---|
| With Thermostat Control, | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
Full thick 3" ..... $66.00
(2") Less than 1,000 □ ft. ..... 64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—

Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd. |
|---|---|
| V.G.-D.F. B & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry, 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-5I5 ..... $120.00
½-inch, 4.0x8.0-5I5 ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plysform ..... 160.00

**Shingles** (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $9.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $45 per M to above
Creosoted, 8-lb. treatment ..... Add $52 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond, 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .90 |
| Three-coat work | per yard | 1.35 |
| Cold water painting | per yard | .45 |
| Whitewashing | per yard | .25 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Wholesale Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

Pioneer Dry White Lead—Litharge—Dry Red Lead
Red Lead in Oil

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $ .. | $... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

| | |
|---|---|
| 6-inch | $2.75 lineal foot |
| 8-inch | 3.25 lineal foot |
| 10-inch | 4.10 lineal foot |
| 12-inch | 5.20 lineal foot |
| Installation | 75c to $1.50 lineal foot |

## PLASTER—

Neet wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes.
10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes,
10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes.
10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.

| | | |
|---|---|---|
| Standard, | 4-in. | $ .28 |
| Standard, | 6-in. | .51 |
| Standard, | 8-in. | .74 |
| Standard, | 12-in. | 1.61 |
| Standard, | 24-in. | 6.42 |

Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless,
(unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. .. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.45 to $1.70 per square foot.
Cove Base—$1.20 per lineal foot.
Quarry Tile Floors—6x6 with 6" base @ $1.35 per sq. ft.
Tile Wainscots and Floors—Residential, 4¼x4¼ @ $1.75 to $2.00.
Tile Wainscots—Commercial Jobs 4¼x4¼ Tile $1.60 to $1.85 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜"... $ .25 - $ .35 sq. ft. Light shades slightly higher.
Cork Tile—$.60-$.70 per sq. ft.
Mosaic Floors—See dealers.

| | |
|---|---|
| Linoleum tile, per □ ft. | $ .65 |
| Rubber tile, per □ ft. | $ .55 to $ .75 |

**Furring Tile**

| Scored 12 x 12, each | F.O.B. S. F. $ .17 |
|---|---|

**Kraftile:** Per square foot

| Patio Tile—Niles Red | |
|---|---|
| 12 x 12 x ⅞-inch, plain | $ .40 |
| 6 x 12 x ⅞-inch, plain | .43 |
| 6 x 6 x ⅞-inch, plain | .46 |

**Building Tile—**

| | |
|---|---|
| 8x5½x12-inches, per M | $139.50 |
| 6x5½x12-inches, per M | 105.00 |
| 4x5½x12-inches, per M | 84.00 |

**Hollow Tile—**

| | |
|---|---|
| 12x12x2-inches, per M | $146.75 |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
KAEMPER & BARRETT
San Francisco: 233 Industrial St., JU 6-6200
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL & AERIAL PHOTOGRAPHS**
FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK OF S. F.
San Francisco, Post & Montgomery Sts., EX 2-7700

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Boyle, AN 3-7108
Seattle 4:1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
Face Brick
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611
UNITED MATERIALS & RICHMOND BRICK CO.
Point Richmond, BE 4-5032

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
CALAVERAS CEMENT CO.
San Francisco: 315 Montgomery St.
DO 2-4224, Enterprise 1-2315
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**Cold Storage Doors**
BIRKENWALD
Portland: 310 N.W. 5th Ave.

**Electric Doors**
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

**Folding Doors**
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

**Hardwood Doors**
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

**Hollywood Doors**
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

**Screen Doors**
WEST COAST SCREEN DOOR CO.

**DRAFTING ROOM EQUIPMENT**
GENERAL FIREPROOFING CO.
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St., UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121
KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
BINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
JACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**FURNITURE—INSTITUTIONAL**

GENERAL FIREPROOFING CO.
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
LOUIS V. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco: 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
K-LATH CORP.
Alhambra: 909 So. Fremont St., Alhambra
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Shotwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
PATRICK J. RUANE
San Francisco: 44 San Jose Ave., MI 7-6414

**LIGHTING FIXTURES**

SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
VERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT OF NORTHERN CALIFORNIA
Berkeley: 2547-9th St., TH 1-3031
Enterprise 1-2204

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OFFICE EQUIPMENT**

GENERAL FIREPROOFING CO.
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco, 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
D. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PHOTOGRAPHS**

**Construction Progress**

FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

PLASTIC SALES & SERVICE
San Francisco: 409 Bryant St., DO 2-6433
WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS V. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHNERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**SPRINKLERS**
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES (ENGINEERS & CHEMISTS**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
San Francisco: 198 Mississippi St., UN 1-0273

**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
Los Angeles: 3450 Wilshire Blvd., DU 8-9591

**TIMBER TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**TRUCKING**
PASSETTI TRUCKING CO.
San Francisco: 264 Clementina St., GA 1-5297

**UNDERPINNING & SHORING**
D. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .07S W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .09S W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**FIRE STATION,** Palm Springs, Riverside county. City of Palm Springs, owner. New fire station 82x74 ft., includes apparatus room, offices, meeting room, dormitory wing, sidewalks, curbs, driveway parking lot, grease pit, yard walls; 1-story concrete block with corrugated aluminum trim, air conditioning, steel rolling doors, acoustic treatment, structural steel, asphalt tile, glazed and ceramic tile, aluminum windows — $73,290. ARCHITECT: Williams, Williams, Williams and Clark, Frey and Chambers, 879 N. Palm Canyon Dr., Palm Springs. GENERAL CONTRACTOR: Orlan R. Andrews, 191 S. Indian Ave., Palm Springs.

**NEW HIGH SCHOOL,** Cupertino, Santa Clara county. Fremont Union High School District, Sunnyvale, owner. 1-story, wood frame, built-up roofing, concrete foundations, concrete floor slab, cement plaster and wood finish walls, wood decks; gymnasium and student union building have supported frames of steel, exterior walls reinforced concrete; Classroom buildings, shops, cafeteria, music auditorium, gymnasium, locker building, swimming pool, covered corridors, toilet rooms — $2,117,219. ARCHITECT: Masten Hurd & Abrams, 526 Powell St., San Francisco. GENERAL CONTRACTOR: Nielson & Nielson, 1071 Westwood Drive, San Jose.

**OFFICE BLDG.,** South Gate, Los Angeles county. United Rubber Workers Local 1000, South Gate, owner. 2-story reinforced brick, 48x60 ft.; composition roofing, tapered steel girders, aluminum casement and double hung sash, concrete slab and wood floors, asphalt tile flooring, terrazzo floor lobby, wood stud and plaster partitions, laminated plastic counter tops, heating and ventilating, ceramic tile floor restrooms—$75,000. ENGINEER: David T. Witherly, 7233 Beverly Blvd., Los Angeles. GENERAL CONTRACTOR: Vandruff Const. Co., 4525½ Firestone Blvd., South Gate.

**COUNTY ADM. BLDG.,** Pittsburg, Contra Costa county. County of Contra Costa, Martinez, owner. 1-story, 23,000 sq.ft. area; tilt-up concrete construction, steel frame, steel roof deck, brick veneer exterior, concrete slab floor, metal movable partitions; facilities for Courtrooms, Health and Welfare services, Social Service — $550,645. ARCHITECT: Beland & Gianelli, 1221 Monterey St., Martinez. GENERAL CONTRACTOR: A. B. Lahti Const. Co., 21 Arlington Court, Berkeley.

**COMMUNITY HOSPITAL ADD'N.,** Beverly, Montebello, Los Angeles county. Beverly Community Hospital of Montebello, Montebello, owner. Wood frame and brick addition and alterations, 27,000 sq.ft. of new construction; composition roofing, steel sash, air conditioning, project includes extension and enlargement of surgical area, x-ray and dark room, kitchen and dining areas, enlargement of the utility and mechanical building, enlarging

parking areas — $703,310. ARCHITECT: Neptune & Thomas, 1560 W. Colorado St., Pasadena. GENERAL CONTRACTOR: D. C. Leneve Inc., 433 N. Spruce Ave., Montebello.

**JUNIOR COLLEGE ADD'N.**, Coalinga, Fresno county. Coalinga Union High School District, Coalinga, owner. Work consists of addition of classrooms and shops — $294,700. ARCHITECT: Walter Wagner & Associates, 1830 Van Ness, Fresno. GENERAL CONTRACTOR: Midstate Const., Co., Bank of America Bldg., Fresno.

**CHAPEL & EDUCATIONAL UNIT,** Chula Vista, San Diego county. First Presbyterian Church of Chula Vista, owner. New Chapel and 4-classroom addition, 7250 sq.ft. of area; frame and stucco construction, composition and shingle roof, masonry work, metal sash, ceramic tile, heating and ventilating, folding doors — $46,521. ARCHITECT: Walter C. See, 4460 Park Blvd., San Diego. GENERAL CONTRACTOR: Howard Stiner, 2371 San Diego Ave., San Diego.

**BRANCH BANK,** Tracy, San Joaquin county. Crocker-Anglo National Bank, San Francisco, owner, 1-story, 8700 sq.ft. area; reinforced concrete vault 2300 sq.ft.; concrete block walls, concrete floors, record storage space, cafeteria, off-street parking; additional area for commercial rental — $175,000. ARCHITECT: Robert B. Liles, 340 Pine St., San Francisco.

**OFFICE BLDG.**, Marysville, Butte county. Dahlmeir Insurance Co., Oroville, owner. 1-story wood frame and concrete block office building—$33,504. ARCHITECT: Robert S. Oliver, 916 F St., Marysville. GENERAL CONTRACTOR: Merle W. Means, 2775 Mitchell Ave., Oroville.

**STORE BLDG.**, Palm Springs, Riverside county. J. W. Robinson, Palm Springs, owner. Concrete and masonry construction, 14,500 sq.ft. of area; built-up roofing, slab floor, insulation, plastering, acoustical, metal sash, plate glass, structural steel, air conditioning, heating and ventilating — $300,000. ARCHITECT: Pereira & Luckman, 9220 Sunset Blvd., Los Angeles. GENERAL CONTRACTOR: Robinson & Wilson, 179 4th St., San Bernardino.

**ELEMENTARY SCHOOL,** Benjamin Franklin, Mills Estate (Burlingame), San Mateo county. Burlingame School District, Burlingame, owner. 1-story wood frame, masonry built-up roofing, concrete and asphalt tile floors; facilities for administration offices, classrooms, kitchen, multi-purpose, toilet rooms — $309,600. ARCHITECT: Hertzka & Knowles, 85 Post St., San Francisco. STRUCTURAL ENGINEER: Graham & Hayes, 225 Post St., San Francisco. MECHANICAL & ELECTRICAL ENGINEERS: Keller & Gannon, 126 Post St., San Francisco. GENERAL CONTRACTOR: Joseph Bettancourt, 125 S. Linden St., South San Francisco.

**CITY HALL,** Palos Verdes Estates, Los Angeles county. City of Palos Verdes, owner. Two story and basement combination City Hall, fire and police station; 14,000 sq. ft. of area, plus 3800 sq. ft. in basement; 1st floor reinforced brick, 2nd floor steel stud and plaster, steel trusses, wood roof framing, mission tile roofing, reinforced concrete floors, hot water heating system, metal windows, plumbing, electrical, terrazzo, quarry tile and plastic type flooring—$31,570 (per year on lease-purchase basis). ARCHITECT: Carrington H. Lewis, 344 Via Tejon, Palos Verdes Estates. GENERAL CONTRACTOR: North Brand Co., 2965 W. 6th St., Los Angeles.

**CHILDREN'S HOME,** Eastfield, Campbell, Santa Clara county. Home of Benevolence, Inc., San Jose, owner. Frame construction, some concrete block, built-up roofing—$105,655. ARCHITECT: Higgins & Root, 220 Meridian Rd., San Jose.

**TIRE MFG. PLANT,** South Stockton, San Joaquin county. Mohawk Rubber Company, Akron, Ohio, owner. New tire manufacturing plant 100x400 ft. on 11 acre site in the W-P Industrial Tract; concrete slab floors, tilt-up walls, truss roof, sprinkler system, doors car and truck height—$750,000. ENGINEER: C. Jefferson Sly, 580 Market St., San Francisco. GENERAL CONTRACTOR: W. C. Tait Corpn, 2300 Mason St., San Francisco.

**STORAGE VAULT & PAPER STORAGE,** Los Angeles. Van Luit Co., Los Angeles, owner. Two story type I construction, tilt up concrete walls, pan-type second floor; 4800 sq. ft. of area—$36,184. STRUCTURAL ENGINEER: Floyd E. Weaver. GENERAL CONTRACTOR: MacIsaac & Menke, 3440 E. 14th St., Los Angeles.

**ELEMENTARY SCHOOL,** Wildwood, Trinity county. Hayfork Valley Union School District, Hayfork, owner. 1-Story metal Butler-Type building providing facilities for 2 classrooms, kitchen, and toilets — $28,474. ARCHITECT: Gerald D. Matson, 537 G Street, Eureka. GENERAL CONTRACTOR: Thomas W. Lisota, 910 Sierra Vista, Redding.

**PARKING GARAGE BLDG.,** San Francisco. Downtown Shoppers Parking Corpn, San Francisco, owner. Three story, plus basement, reinforced concrete construction, Class II type, facilities for 1,023 automobiles — $1,500,000. STRUCTURAL ENGINEER: John J. Gould and J. H. Degenkolb, 149 California St., San Francisco. GENERAL CONTRACTOR: William J. Moran Co., 1011 So. Fremont Blvd., Alhambra.

**BANK ADD'N,** El Sobrante, Contra Costa county. Mechanic's Bank, El Sobrante, owner. 1-story frame and masonry, built-up roofing, concrete and tile floors—$40,961. ARCHITECT: Johnson & Cametta, 3516 MacDonald Blvd., Richmond. GENERAL CONTRACTOR: Carl Overaa Const. Co., 520 16th St., Richmond.

**AUDITORIUM,** School, Modesto, Stanislaus county. Modesto Unified School District, Modesto, owner. Work comprises construction of a new school auditorium—$457,700. ARCHITECT: Harry J. Devine, 1012 J St., Sacramento. GENERAL CONTRACTOR: Carvers Const. Co., 1870 Lucerne, Stockton.

**CHURCH BUILDING,** Santa Isabel Parish, Los Angeles. Catholic Archbishop, Los Angeles, owner. Brick church unit 15,000 sq.ft. area; tile and composition roofing, exposed brick exterior, steel or aluminum windows, asphalt tile, terrazzo,


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ceramic tile, sprayed asbestos acoustical work, ornamental metal, painting, plumbing, electrical work, heating, ventilating—$224,300. ARCHITECT: Anthony A. Kauzor, 2033 W. 7th St., Los Angeles. GENERAL CONTRACTOR: Pallisgaard Const. Co., 10948 Santa Monica Blvd. Los Angeles.

**HOSPITAL ADD'N,** Culver City, Los Angeles county. Culver City Hospital, Culver City, owner. 1-story surgery addition to present building; masonry construction, composition roofing, concrete slab, metal sash, conductive flooring, ceramic tile, electrical and plumbing. ARCHITECT: Maynard Lyndon, 3460 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Beiser Building Corp., 3923 Duquesne, Culver City.

**INDUSTRIAL BLDG.,** Salinas, Monterey county. Streater Inc., Salinas, owner. 1-story concrete tilt-up construction; 50,000 sq.ft. area; steel columns, wood glued laminated beams—$217,992. ENGINEER: George S. Nolte, 3850 Middlefield Rd., Palo Alto. GENERAL CONTRACTOR: Tombleson & Huck Const. Co., P. O. Box 1388, Salinas.

**CHURCH-FELLOWSHIP HALL,** Petaluma, Sonoma county. Lutheran Church of Petaluma, owner. 1-story wood frame, glued wood laminated arches, stucco exterior, panelled interior—$33,020. ARCHITECT: Charles J. Woodbury, Prince Bldg., Petaluma. GENERAL CONTRACTOR: John Rasmussen, 1575 Mt. View Ave., Petaluma.

**BAKERY ADD'N,** Los Angeles. Barbara Ann Baking Co., Pasadena, owner. Masonry addition to Sweetgoods building also wash and grease rack facilities; 6200 sq.ft. area; composition roof, steel beams, asphaltic paving, tapered steel beams, overhead sliding doors, chain link fencing, interior plaster, concrete slab, fixed steel windows—$77,300. ARCHITECT: Bennett & Bennett, 1165 E. Colorado, Pasadena. GENERAL CONTRACTOR: Noyes Roach Co., 5017 Telegraph Rd., Los Angeles.

**JAIL ADD'N.,** San Bernardino. County of San Bernardino, owner. Construction of additions and furnishing equipment for new facilities to existing jail facilities of the County Court House — $45,830. ARCHITECT: Jerome Armstrong, 264 Highland Ave., San Bernardino. GENERAL CONTRACTOR: Cal Const. Co., 224 S. "I" St., San Bernardino.

**CREATIVE ARTS BLDG.,** Senior High School, Pittsburg, Contra Costa county. Pittsburg Unified School District, owner. Construction of a new creative arts building — $1,722,390. ARCHITECT: Cantin & Cantin, 690 Market St., San Francisco. STRUCTURAL ENGINEER: Kellberg, Pasquette & Maurer, 417 Market St., San Francisco. ELECTRICAL ENGINEER: Williamson & Vollmer, 5652 College Ave., Oakland. MECHANICAL ENGINEER: Sanford W. Fox, 466 Santa Clara Ave., Oakland. ACOUSTICAL ENGINEER: A. B. Martin, 666 Mission St., San Francisco. GENERAL CONTRACTOR: Pacific Coast Builders, 1 South Park, San Francisco.

**NEW GYMNASIUM,** High School, Cloverdale, Sonoma county. Cloverdale Union High School District, Cloverdale, owner. Work comprises construction of a new gymnasium and rehabilitation of present facilities; concrete foundations, wood frame construction — $193,730. ARCHITECT: J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa. GENERAL CONTRACTOR: Gorman B. Hodges, 324 Yolanda, Santa Rosa.

**MEDICAL CLINIC,** Riverside. Riverside Clinic Corp., Riverside, owner. 1-story masonry, wood frame and plaster, 25,000 sq.ft. of area; composition roofing, steel sash, concrete slab floor with resilient flooring, acoustical tile, x-ray equipment, air conditioning, cabinet work, plumbing and electrical work—$320,000. ENGINEER: Earl Bennetsen, 1011 S. Fremont Ave., Alhambra. GENERAL CONTRACTOR: William J. Moran Co., 1011 S. Fremont Ave., Alhambra.

**UC OFFICE BLDG.,** Berkeley, Alameda county. University of California, Berkeley, owner. 7-story main building with 2-story wing totaling 140,500 sq.ft. of area; steel frame, ceramic veneer exterior — $2,815,000. ARCHITECT: Welton Becket & Associates, 5657 Wilshire Blvd., Los Angeles. MECHANICAL ENGINEER: Welton Becket & Associates, Los Angeles. STRUCTURAL ENGINEER: Murray Erick Associates, 5657 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Dinwiddle Const. Co., Crocker Bldg., San Francisco.

**GARAGE,** Phoenix, Arizona. Carnation Milk Co., Phoenix, owner. Work will include lockers, spray shop, body shop, lube rack, parts room and machine shop, masonry construction, 60x198 ft., — $216,500. ARCHITECT: John G. Case, Phoenix, Arizona.

**SUNDAY SCHOOL-SOCIAL HALL,** Santa Cruz. Congregational Church of Santa Cruz, owner. Frame and masonry combination Church, Sunday School and Social Hall, shake roof — $857,775. ARCHITECT: Leslie I. Nichols, 454 Forest Ave., Palo Alto. GENERAL CONTRACTOR: Harrod & Williams, 290 S. Murphy St., Sunnyvale.

**PUBLICATION BLDG.,** Manhattan Beach, Los Angeles county. Douglas Aircraft Co., Santa Monica, owner. 1-story and mezzanine, 126,000 sq.ft. of area; tilt-up wall construction, built-up roofing, steel decking, structural steel work, slab and asphalt tile floors, tile work, metal toilet partitions, electrical work, air conditioning, heating, ventilating, plastering, acoustical work, paving. ENGINEER: Holmes & Narver, 826 S. Figueroa St., Los Angeles. GENERAL CONTRACTOR: C. L. Peck, 816 W. 5th St., Los Angeles.

**AUTO CLUB BLDG.,** Fullerton, Orange county. Inter-Insurance Exchange of Automobile Club of Southern California, Los Angeles, owner. 1-story masonry building, 4500 sq.ft. of area; concrete tile roofing, metal louvered sash, colored concrete slab floors, air conditioning, plumbing, electrical work, asphalt paved parking area — $61,546. ARCHITECT: Weimer & Fickes, 107 W. Huntington Drive, Arcadia. GENERAL CONTRACTOR: C. R. Young & Sons, 736 N. Palm Ave., Anaheim.

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# IN THE NEWS

### DONALD A. QUARLES AWARD OF MERIT

Donald A. Quarles, deputy secretary of defense, has been selected as the 1957 recipient of the American Institute of Consulting Engineers Award of Merit.

The Award, citing Quarles as an "able administrator and noted scientist," will be presented by Edward H. Anson, president of the Institute, at the annual dinner of the organization in New York City on October 15.

Lieut. Gen. Raymond A. Wheeler (R), special representative of the United Nations in charge of the Suez Canal clearance operation, will deliver the principal address of the evening's festivities.

Quarles is the sixth outstanding American to receive the Institute's Award of Merit.

### ELECTRONICS LABORATORY

Engineers Simpson & Stratta, 325 5th Street, San Francisco, have completed drawings for construction of a new Electronics Laboratory building for research and development in infra-red and other electronics to be built in Palo Alto for the Philco Corporation.

The new building will contain 50,000 sq. ft. of area and will be of reinforced concrete and glass of heat resistant qualities. Facilities will be provided for a library, laboratories, conference rooms, cafeteria and other rooms. Estimated cost of the work is $1,000,000.

### FIRST PRESBYTERIAN CHURCH OF MT. VIEW

Architect Alfred Johnson, 165 Jessie Street, San Francisco, is preparing plans and specifications for construction of a new Church building in Mt. View for the First Presbyterian Church.

The new Church will be built on a 5-acre plot. The Sanctuary will seat 500 persons and 8 units will comprise the entire new church group. Parking will be provided for 170 automobiles. The estimated cost of the project is $500,000.

### PSYCHIATRIC HOSPITAL

Architects Campbell & Wong, 737 Beach Street, San Francisco, are preparing drawing for construction of a frame and stucco Psychiatric Hospital to be built at Waldo Point (Marin county) for Dr. Allen R. Hendricks.

The new hospital will provide facilities for 40 beds and will cost an estimated $500,000.

### SC LAW SCHOOL REMODELING

Work is underway on a remodeling program for the University of Southern California School of Law building that will bring the 30-year-old structure in line with current educational needs in the law field.

The Kemper Campbell, Jr. Memorial Lounge, a new student lounge, will be built on the mezzanine floor of the present lobby honoring Campbell, a former law student, killed in an air crash during World War II.

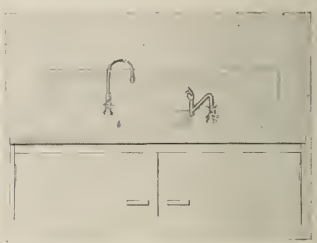
The main lobby will be revamped to enlarge the present administration offices and to provide a new faculty lounge that can be used also for special seminars and discussion sessions.

The present practice court on the fourth floor will be completely rebuilt to provide a new fourth housing faculty office and classrooms, the practice court and additional library space will occupy the third floor.

Preliminary planning for the remodeling is being done by Smith, Powell and Morgridge. Estimated cost of the work is $150,000.

### NEW FOUNTAIN UNIT OFFERED

A complete one-piece deck-top, receptor and fountain unit moulded in lightweight fiberglass has been introduced by Haws Drinking Faucet Company, and are available in white and a selection of five decorative colors.



There are no rims, cracks or joints, thus eliminating dirt and water accumulation. Water runs unhindered from deck-top to receptor. Come in standard lengths four and six feet, 24 inches deep; furnished with integral backsplashes and end splashes. Installation is easily and quickly accomplished by screwing wooden receptor backing onto a prepared frame or standard cabinet. Complete data from manufacturer, Haws Drinking Faucet Co., 4th & Page St., Berkeley, California.

### R. H. WILSON RETIRES FROM STATE HIGHWAY

R. H. (Dick) Wilson, for many years associated with the California State Department of Public Works in the design and construction of the state's highways and bridges, will retire from public service the latter part of this month.

In honor of his many years of service a public dinner is being given in his honor in Governors Hall, State Fair Grounds, Sacramento, on October 31st.

### ELEMENTARY SCHOOL FOR PALMDALE

Architects Balch-Bryan-Perkins-Hutchason, Los Angeles, have completed plans for construction of a $400,000 Tamarisk Elementary School to be built in Palmdale.

The new facilities will include 34,500 sq. ft. of area and provide for 600 students from kindergarten through the eighth grade. The cluster plan will involve seven buildings housing 16 classrooms, 2 kindergartens, administration building and multi-use unit.

All buildings are brick exterior wall and wood frame construction; fluorescent lighting, forced air heating, plus adequate parking areas, loading zone, landscaping and athletic fields.

### SUNFLOWER SCHOOL CONSTRUCTION

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tary school for the rapidly expanding Charter Oak School District, has been started by the Wadley Construction Company, who are currently building the District's Badillo School.

Both schools were designed and engineered by Daniel, Mann, Johnson & Mendenhall, Los Angeles architectural and engineering firm.

The first phase of the school will provide 12 classrooms, 2 kindergartens, an administration building, a multi-purpose building and attendant facilities. Construction will be of wood frame with glued laminated beams; airflow heating and perimetal froced air heating.

### STUDENT UNION BUILDING

Architect Jotham S. Gould, 407 Sansome Street, San Francisco, has completed plans and specifications for construction of a 1-story Student Union building, faculty and dormitory building, on the Menlo School and College, Atherton.

Facilities will include recreational, snack bar and book store; concrete floors, asbestos shingle roofing and wood sheathing. The dormitory and faculty building will be 2-story in height. Estimated cost is $500,000.

### WALLACE V. CUNNEEN, JR. JOINS BECKET ASSOCIATES

Wallace V. Cunneen, Jr., has been named to the executive staff of Welton Becket and Associates, San Francisco architects and engineers, according to a recent announcement by Welton Becket.

Cunneen, Jr., was formerly in charge of sales and a director of the Cunneen Company of Philadelphia, a specialized architectural and consulting organization dealing primarily in design and planning of banking institutions. In his new position Cunneen will have charge of client liaison in many of the Becket's world-wide activities.

### NEW Y.M.C.A. FOR SAN JOSE

Architects Higgins & Root, 220 Meridian Road, San Jose, are negotiating a contract for the construction of a new $750,000 Young Men's Christian Association building in San Jose.

Construction of the new facilities will be on a site at 100 E. Santa Clara Street in San Jose.

### MEDICAL BUILDING FOR MONTEREY

Architect William D. Concolino, 588 Huston Street, Monterey, is completing drawings for construction of a 1-story Medical Building in Monterey for the Paloma Land Company of Monterey.

The new building will be of frame construction; 8,000 sq. ft. in area, and will provide facilities for 9 modern medical units.

### POLICE STATION FOR RESEDA

Architect William Allen, 6112 Wilshire Blvd., Los Angeles, is completing plans and specifications for construction of a 1½ story reinforced concrete Police facility in Reseda for the Los Angeles City Board of Public Works.

The new building will contain 21,595 sq. ft. in area and will be of composition roofing with wood roof decking, security portions of the building will have a concrete roof; air conditioning, concrete slab, basement and upper half story will house mechanical equipment. Aluminum en-


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trance doors, gypsum and metal lath, mosaic and stone veneer; a concrete block garage building will also be built on the site. Estimated cost is $450,000.

### H. HALVORSON INC. GETS KAISER DEAL

The H. Halvorson, Inc., company of Spokane, Washington, has been granted a franchise to fabricate and erect stressed-skin aluminum dome buildings by the Kaiser Aluminum & Chemical Sales, Inc.

The unique buildings are based upon geodesic principles and each involves the creation of a spherical structure through the use of aluminum panels and struts, as a combination skin and framing, eliminating the need for pillars or other interior supports.

The world's first aluminum dome building was completed in January this year at the Hawaiian Village Hotel in Honolulu and is a public auditorium seating 2,200 people.

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### LABORERS UNION BUILDS NEW HEADQUARTERS

Structural Engineer Hugh M. O'Neil, 610 16th Street, Oakland, has completed plans for construction of a new 1-story concrete block union headquarters building in Richmond for the Laborers Union, Local No. 324.

The new facilities, costing an estimated $50,000, will comprise an area of 50x100 ft.

### ARCHITECT NAMED FIRM PRESIDENT

Leon M. Dilley has been appointed president of the John C. Lindsay & Associates, architects and engineers, of Los Angeles, according to an announcement by John C. Lindsay.

Dilley has been an associate in charge of production for the past four years and has been with the Lindsay organization for fourteen years. He is owner of the Bel Air Construction & Investment Company and a pioneer in the application of modular post and beam construction for mass produced houses.

### BROWN W. SAVELAND GETS APPOINTMENT

Brown W. Saveland has been appointed assistant district manager of the Austin Company's Pacific Northwest activities, with headquarters at Seattle, Washington, according to an announcement by George A. Bryant, president of the engineering and construction firm.

Saveland has been associated with the company since 1941 when he started as an electrical engineer in the firm's Cleveland office.

### BALDWIN PARK GETS NEW TELEPHONE BLDG.

Architect Albert C. Martin and Associates, Los Angeles, designed the new General Telephone facilities being completed in Baldwin Park. The new two-story addition costing $425,000, contains 23,450 sq. ft. of area and houses an information switchboard with 36 available positions, an operators' cafeteria, rest room facilities, and a wire chief's office accommodating the Baldwin Park and Puente central offices area.

### HAVEG INDUSTRIES ACQUIRE SC FIRM

The Reinhold Engineering and Plastics Company Inc. of Norwalk, California, producers and fabricators of plastics for the aircraft missile industry and chemical corrosion equipment, has been acquired by the Haveg Industries Inc., Wilmington, Delaware, according to an announcement by Dr. John H. Lux, Haveg's president.

Reinhold, established in 1928, and operating 40,000 sq. ft. of modern plant facilities, will be operated as a Haveg subsidiary and will serve as a West Coast outlet for the Delaware firm.

### SOUTHERN CALIFORNIA FIRM EXPANDS NORTHWARD

The Harvey Aluminum Company of Torrance, California, has announced expansion plans which call for the construction of a new plant and facilities in The Dalles, Oregon.

The new plant which is to be completed early in 1958, will produce more than 100,000 tons of refined bauxite annually.

### AMERICAN CONCRETE INSTITUTE MEETS

The newly organized Southern California chapter of the American Concrete Institute will hold its first general meeting on November 8th in the Roger Young Auditorium, Los Angeles.

ACI national officers attending the meeting include Walter H. Price, president of the American Concrete Institute and head of the Engineering Laboratories, U.S. Bureau of Reclamation, Denver.

The general program will feature Henry M. Layne, chairman of the Southern California chapter.

### ELECTRONICS FIRM IS ESTABLISHED

Charles M. Brown recently announced establishment of the Basic Electronics


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Engineering Company, Daly City, California, which will offer an engineering and management consulting service to industry. The firm also plans to manufacture and market several proprietary electronic products.

### MASONIC TEMPLE

Architect Paul L. Williamson, 275 E. 25th St., Long Beach, has completed plans for construction of a Masonic Temple and office building in Long Beach for the Palos Verdes Masonic Lodge.

The facilities will provide 14,000 sq. ft. of area for the lodge, and 8,000 sq. ft. for the commercial wing. Off street parking will provide for 81 automobiles. Estimated cost of the project is $270,000.

### ENGINEERS FORM NEW COMPANY

Eliseo O. Mariani, partner of the firm of Mariani & Cummings, with offices at 941 N. La Cienega Blvd., Los Angeles, has announced the formation of the new engineering company.

Formerly of Buenos Aires, where the firm maintains an office, Eliseo Mariani received his BS degree at Infiana University, and recently served as project engineer for Pereira & Luckman.

Donld A. Cummings is a graduate of SC and recently served as electrical engineer for the Pereira & Luckman firm, prior to that being with the Bechtel Corpn.

### PUBLIC LIBRARY

The architectural firm of Wahamaki & Corey, 1035 B St. Hayward, have completed drawings for construction of a new 1-story, 3,000 sq. ft. of area Public Library building for the City of Hayward.

Construction will be of steel frame with reinforced concrete, steel roof trusses, concrete slab and tile floors.

### SHOPPING CENTER AND RESIDENCES

Architect Howard Schroder and Designer H. K. Lindquist of Fresno are preparing preliminary plans for construction of a new $15,000,000 Shopping Center and Residential area in Sunnyside near Fresno for Joseph A. Romano & Associates of Fresno.

The site comprises 55 acres; the shopping center will provide facilities for markets, drug store, variety store, branch bank, specialty shops. Some 80 acres will be set aside for residences which will be built to sell for $17,500 to $25,000.

### STANFORD MEDICAL CENTER AND HOSPITAL

Architect Paul J. Huston, 744 Cowper Street, Palo Alto, has been named Consultant for the joint Palo Alto-Stanford Hospital and Medical School which is to be built on the Stanford University campus at a cost of some $42,000,000.

Complete facilities will be provided for teaching, clinics, laboratories, nurses quarters, medical library and utilities.

The first phase of the project will cost an approximate $22,000,000 and additional construction will cost $20,000,000. It is expected the first phase will be completed in 1959.

### ARCHITECT SELECTED

Architect Francis A. Constable, 95 Spencer Avenue, Sausalito, has been commissioned by the Archbishop of San Francisco, to draft plans for the construction of the new Saint Augustine's Church in Oakland.

Of concrete construction, the new church will provide for 1,000 persons, and will cost an estimated $350,000.

### GEORGE E. MITCHELL IS NAMED SALES ENGINEER

George E. Mitchell, Jr., has been named Sales Engineer for the Leadlight Fixture Company, Oakland, for the Bay Area, according to a recent firm announcement.

Mitchell is thoroughly experienced in residential and commercial construction, and is well known throughout the light construction industry in the Bay Area.

### FREDERICK M. MANN JR. IS NAMED SUPERVISING ARCHITECT

Frederick M. Mann, Jr., Seattle architect, has been appointed supervising architect of the University of Washington by the Board of Regents.

As full time member of the University staff, Mann will be in charge of the development of the University's building program. John Paul Jones, who has been serving on a temporary part-time basis, will continue for one year in an advisory capacity.

Mann will be architectural consultant for the Board of Regents on all projects and will work with commercial architects who will be retained to handle construction of new buildings. He also will be in charge of alterations and minor projects that are not awarded to commercial firms.

Other duties will include advising on campus landscaping and improvements to grounds, roadways and parking areas.

Mann has been on the staff of the


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Seattle architectural firm of Young, Richardson and Carleton for the past three years, and previously was a partner in a San Rafael, California, firm, and prior to that was in San Francisco and Boston offices.

### ENGINEERING PROBLEM IN SCHOOL CONSTRUCTION

Construction of the Tennyson High School in South Hayward, Alameda county, presented some interesting foundation problems for architects Anderson and Simonds, structural engineer Thomas F. Chace, and for the soils foundation engineering firm of Woodward, Clyde & Associates.

There is an engineered fill under the entire building area supporting all structures except the gymnasium. This building, located in the heart of the "play core" contributes the heaviest loads in the area with the greatest height of fill.

Thus, the design solution was to support the floor slab for the gymnasium on the engineered fill, but carry all structural loads on reinforced concrete piers down through the fill. Some of these piers extend as much as 13 feet.

The 152,000 sq. ft. school, accommodating 1800 students, is of wood frame construction, gymnasium concrete and steel. Nine separate buildings in the design will cost an estimated $3,000,000.

### NEW HOSPITAL FOR OAKLAND

The architectural firm of Nielsen & Moffatt, 4072 Crenshaw Blvd., Los Angeles, is preparing drawings for construction of a new 1-story 27,500 sq. ft. in area hospital building in Oakland for the Civic Center Hospital Foundation of Oakland.

The new building costing $500,000 will be of reinforced brick construction on concrete foundation, forced air heating, air conditioning, complete fire alarm system with fire doors, aluminum entrance doors, steel sash, and a large off-street automobile parking area will be provided.

Facilities will include medical, surgical and obstetrical provisions for a 50-bed hospital.

### DON WILEY WITH WEBER SHOWCASE

Don Smiley has been named vice president in charge of manufacturing for Weber Showcase & Fixture Company Inc., according to an announcement by Alexander Black, executive vice president.

Smiley succeeds Fred Weber, who is retiring to his ranch in Southern California but will continue to serve on the firm's board of directors.


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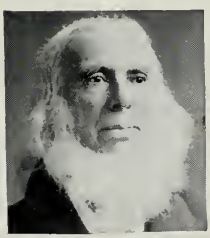

MANY a New Yorker shook his head, and not a few snickered, when they saw the "hole" in Peter Cooper's new building.

But to the benign gentleman with the ruff of graying whiskers it was all so simple: Some day someone would perfect the passenger elevator.

The mere fact that there wasn't one in 1853 would mean little to a man who, with his own hands, had built and driven the first American locomotive. Whose money, and faith, were to help see the Atlantic Cable through all its disasters to final success. And who would "scheme out" a Panama Canal plan fourteen years before DeLesseps.

But Peter Cooper's belief in the future ran in a vein far deeper than simply the material. For his "building with a hole" was Cooper Union, the first privately-endowed tuition-free college in America. A place where young men and women of any race, faith, or political opinion could enjoy the education which he, himself, had been denied. Peter Cooper's dearest dream—which has continued to grow dynamically for nearly a century and today enriches America with thousands of creative thinkers, artists, and engineers.

There is plenty of Peter Cooper's confidence and foresight alive among Americans today. It is behind the wisdom with which more than 40,000,000 of us are making one of the soundest investments of our lives—in United States Savings Bonds. Through our banks and the Payroll Savings Plan where we work, we own and hold more than $41,000,000,000 worth of Series E and H Bonds. With our rate of interest—and the safety of our principal—guaranteed by the greatest nation on earth. You're welcome to share in this security. Why not begin today?

**Now Savings Bonds are better than ever!** Every Series E Bond bought since February 1, 1957, pays 3¼% interest when held to maturity. It earns higher interest in the early years than ever before, and matures in only 8 years and 11 months. Hold your *old* E Bonds, too. They earn more as they get older.

**PART OF EVERY AMERICAN'S SAVINGS BELONGS IN U.S. SAVINGS BONDS**

PUBLIC SERVICE ADVERTISING COUNCIL

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Welcome touch in 1st National's new Portland home is "zone control." Personnel simply set handy wall dials for the blend of air they wish. Hot and cold air streams meet in hi-pressure "mixing boxes"... blend and flow into offices at just the right degree for pleasant air conditioning.

# Steel ductwork solves installation problems

Portland's newest banking office incorporates many architectural innovations. In addition to a handsome exterior, the 1st National Bank of Portland contains a modern, zone-controlled air conditioning system. Fifty tons of USS Galvanized Steel Sheets compose the ventilating ductwork which furnishes ideal temperatures throughout the year to every office in this four-story building.

Streimer Sheet Metal Works, of Portland, solved more than one installation problem by using USS Sheets. To fit construction requirements, they built the ductwork in varying depths ranging from six inches to sixteen inches. The steel sheets were ductile enough to wrap easily around sharp corners, form tight seams, and provide ample strength and corrosion resistance. Good reasons why USS Sheets are on the job today in this Portland installation and in so many others throughout the West!

Steel ductwork can solve installation problems in any office or industrial structure. Write to the address below for the names of ductwork fabricators who can provide you with additional information.

*Specify USS—One Source for All Steels*

*United States Steel Corporation • Columbia-Geneva Steel Division*
*120 Montgomery Street, San Francisco 6*

USS

# ARCHITECT AND ENGINEER

AMERICAN FOREST PRODUCTS CORPN—San Francisco Offices

F. P. LATHROP Const. Co., General Contrac
THOMAS M. CULBERTSON, AIA, Archi

NOVEMBER 1957

# Curtain Walls by Michel & Pfeffer

Speed of construction and consequent low-cost installation make Ariston Curtain Walls highly desirable in contemporary construction.

For assistance with your preliminary and final window designs, call Michel & Pfeffer.

Illustrated: Ariston steel curtain walls with insulated panels.
Phi Kappa Sigma Fraternity, Berkeley, California.
F. P. Lathrop Construction Co., Contractors
Ratcliff and Ratcliff, Architects

ARISTON
Metal Products
SINCE 1912

**Michel & Pfeffer Iron Works, Inc.**
Metal Windows Division
212 Shaw Road
South San Francisco, California
PLaza 5-8983

# creative color...

## Ceramic Veneer

**Pacific Mutual Building, San Francisco,** shows how Ceramic Veneer—in a special custom-made grey green mottled color—compliments design appearance. Architects: Loubet & Glynn, A.I.A. General Contractor· MacDonald, Young & Nelson, Inc.

**In Honolulu, the F. W Woolworth Store reveals a unique combination of a bevel shape, tooled and smooth Ceramic Veneer Striking "Polynesian print" design exemplifies wide range of patterns now possible through the "silk screen" glazing technique. Designers: F. W. Woolworth Co., San Francisco. General Contractor: Walker Moody Co., Ltd., Honolulu.**

**UNLIMITED** freedom of expression, within the bounds of good design, is an architectural advantage in planning and building. So great is the range of colors and styles in *custom-made* Ceramic Veneer, architects are more and more specifying this modern facing material. Indoors or outdoors, Ceramic Veneer enables you to achieve the kind of dramatic effects that are so desirable.

**VERSATILITY** is the major reason Ceramic Veneer earns the recommendation of leading architects. Its unique permanence, lower cost of maintenance, and the wide variety of colors, textures and sizes offer a combination of major advantages to consider in planning.

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USS

Vol. 211 No. 2

EDWIN H. WILDER
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★

**COVER PICTURE**

San Francisco Offices
AMERICAN FOREST PRODUCTS CORPORATION

Thomas M. Culbertson, A.I.A., Architect

One of many new and interesting construction projects done by the F. P. Lathrop Contsruction Company in recent years.

For further details of the F. P. Lathrop story, see page 14.

**ARCHITECTS' REPORTS—**
**Published Daily**

Archie MacCorkindale, Manager
Telephone DOuglas 2-8311

# ARCHITECT AND ENGINEER

*ARCHITECT & ENGINEER is indexed regularly by ENGINEERING INDEX, INC.; and ART INDEX*

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THE OLDEST PROFESSIONAL MONTHLY BUSINESS MAGAZINE OF THE ELEVEN WESTERN STATES

ARCHITECT AND ENGINEER (Established 1905) is published on the 15th of the month by The Architect and Engineer, Inc., 68 Post St., San Francisco 4; Telephone EXbrook 2-7182. President, K. P. Kierulff; Vice-President and Manager, L. B. Penhorwood; Treasurer, E. N. Kierulff. — Los Angeles Office: Wentworth F. Green, 439 So. Western Ave., Telephone DUnkirk 7-8135 — Portland, Oregon, Office: R. V. Vaughn, 7117 Canyon Lane. — Entered as second class matter, November 2, 1905, at the Post Office in San Francisco, California, under the Act of March 3, 1879. Subscriptions United States and Pan America, $3.00 a year; $5.00 two years; foreign countries $5.00 a year; single copy, 50c.

# . EDITORIAL NOTES .

## GOOD LEADERSHIP

Through business leadership, taxpayers of the nation have just won a hard fought action in the continuing battle to check the threat to freedom in the expansion of the federal government.

Perhaps now, in the pause after the achievement of federal budget reductions, is the time to reconsider the goals toward which we soon will be marching again.

Throughout the budget controversey, the most consistent charge made against business spokesmen was that they were "negative", that they were "against" social change and achievement.

There is no doubt that business is against many things, particularly those social proposals which threaten vital American traditions.

As a general rule, business is against: Government regulation of business because they are for individual initiative; they are for employees' freedom; they are for local and state freedom in education of children; they are against expanding federal power, because they are for individual responsibility, and to be socially destructive as those who over enthusiastically advocate more government control contend, business would have to direct their efforts against the traditions they are defending.

It will be well to remember that, in contrast to negativism, the social actions of business are part of the greatest of constructive efforts—the release of individuals' capabilities in all their unlimited possibilities.

* * *

*". . . The plain and simple facts are that at a time when we should be getting ahead we are falling behind in providing the basic community needs."—Harry A. Boswell, Jr., NAHB, Community Facilities Committee.*

* * *

## OUR FINANCIAL CONDITION

The broad, sweeping investigation of the financial condition of the United States undertaken by the Senate Finance Committee under the chairmanship of Senator Harry Flood Byrd, Virginia Democrat, has come to a temporary recess.

The hearings have set some sort of record for "duration of witnesses" before the committee but little else has been accomplished. A voluminous record of opinions, statistical data and background facts have been garnered by both Republicans and Democrats since the hearings began last June. Few, if any opinions held when the hearings opened have been changed.

It is doubtful if the "fiscal education" of members of the Committee undertaken by former Secretary of the Treasury Humphrey, Under Secretary of the Treasury Burgess and Reserve Board Chairman Martin has changed the basic opinions of any member of the Committee, but certainly the hearings have served to bolster individual viewpoint all around.

Probably as a direct and singular result of these hearings there can be little doubt that the Senate Finance Committee will in the future look at tax legislation with a keener perspective in relation to the overall impact on economy.

* * *

*Mistletoe's invitation to a kiss originated in Scandinavian mythology in which a man can demand a kiss of a maiden under it and then give her one of its berries. When the berries are gone, mistletoe loses its spell.*

* * *

## ENGINEER SHORTAGE!

The steady concern expressed throughout industry during the past few years over the shortage of engineers has resulted in what is pherhaps an inevitable reaction.

Some recent statements about the engineer manpower situation have either questioned the critical nature of the shortage or, in some instances, have denied that a shortage exists at all. A recent article appeared in a natural publication advising parents "Don't let your boy become an engineer!" And a recently published study of the long-run determinants of the supply and demand of scientific personnel by the National Bureau of Economic Research declared: ". . . we have found no evidence of any shortage of substantial magnitude."

These comments differ sharply from the viewpoints on the engineer manpower situation expressed by many leading authorities in the field in the recent past:

Henry H. Armsby, Chief for Engineering Education, United States Office of Education, says, "What is important is for all of us to remember that our nation is faced with a present and future shortage of engineers, scientists and technicians . . ."

John R. Dunning, Dean of the School of Engineering, Columbia University, declared, "We are confronted today with a most unusual paradox. In an era when our whole country, our whole society, depends increasingly upon science and engineering for all of its functioning, we nevertheless have a period when our production of scientists and engineers has actually decreased badly during these last years, and the production of engineers falls way short of our crucial needs today."

Lewis L. Strauss, Chairman, Atomic Energy Commission, asserted, "We do know with certainty that we are turning out less than one-half the number of scientists and engineers we require . . ."

In the face of such conflicting expert opinion, how are parents and young potential engineers, directly concerned with the engineering manpower situation, going to make up their minds?

*Air view of $4,000,000 Corrugator Plant and Paper Mill for American Forest Products Corporation, Newark, Calif.*

Architect and Engineer, Raymond Layton & Associates

•

# F. P. LATHROP CONSTRUCTION CO.

## General Contractor

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# BRIGGS BEAUTYWARE announces

## featuring the SCULPTURED LOOK . . .

**B6782**—SULTAN: Syphon jet wall hung bowl with top spud.

**B4012**—MERCURY drinking fountain with glass filler. Semi-recessed, wall hung.

**B3461**—MILTON: 24″ x 20″ lavatory with back, 8″ centers. For concealed carrier.

**B6960**—SANITON: Syphon jet women's urinal with floor outlet, top spud.

**B6706**—CARLTON: Syphon jet floor outlet bowl with top spud.

**B6911**—LAWTON: Wall hung washout urinal with extended shields, top spud.

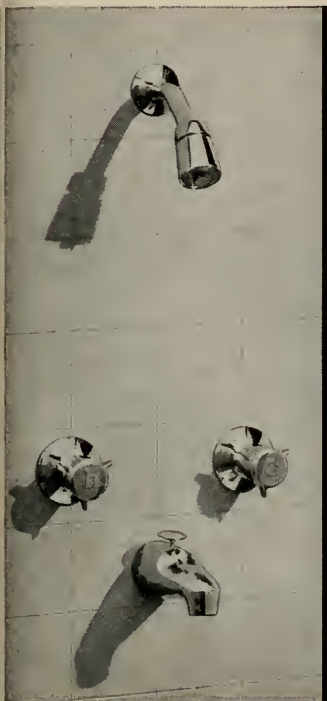
***A complete new line of vitreous china fixtures for commercial, industrial and school use!***

Briggs Beautyware—famous for quality plumbing fixtures for residential use—now moves into the industrial, commercial and school field with a complete new line of vitreous china plumbing fixtures. Designed by Harley Earl, Inc., they feature a *sculptured look* that's as contemporary as today's architecture! And, there's a size and type of fixture to meet nearly every commercial and industrial requirement—from lavatories to service sinks, from men's and women's urinals to drinking fountains. Shown above are representative models. Write today for complete specifications on the entire line.

# BRIGGS

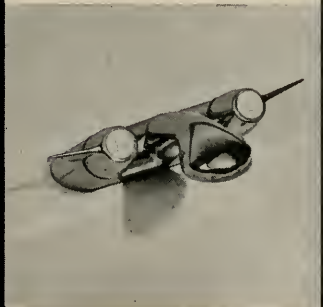
# two new plumbingware advances

## a dynamic new design concept



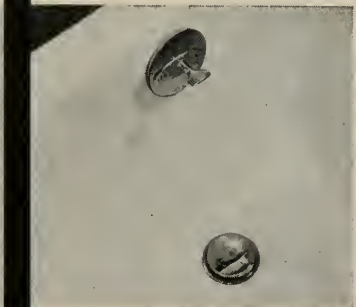
**T-8116.** Combination bath and shower fitting with automatic diverter valve in spout. 8″ centers, self-cleaning shower head, shower arm with ball joint and flange.

**T-8106.** Combination bath and shower fitting with manual diverter, 8″ centers, self-cleaning shower head; shower arm, ball joint, flange.



**T-8722.** Combination 4″ centerset lavatory fitting with spray spout and strainer waste.

**T-8710-S-8.** Combination lavatory fitting, 8″ centers, with aerator, pop-up drain, 1¼″ tailpiece. Also available for 10″ and 12″ centers.



**T-8401.** Trip lever drain with 1½″ tailpiece. (overflow plate and drain plate illustrated).

*A colorful new line of Beautyware Brass fittings for both residential and commercial use!*

Briggs incorporates the "sculptured look" into its new Beautyware line of brass fittings in truly exciting fashion! This advanced styling by Harley Earl, Inc., is the perfect compliment to Briggs residential and commercial lines. In addition, new Beautyware brass fittings incorporate unique, interchangeable colored inserts to match each Briggs color as well as chrome and white. Write now to Briggs for a colorful brochure with complete details and specifications.

BRIGGS MANUFACTURING COMPANY • WARREN, MICHIGAN

B E A U T Y W A R E

# NEWS and COMMENT ON ART

## OAKLAND ART MUSEUM VARIED EXHIBITIONS

Five new showings at the Oakland Art Museum, Oakland Auditorium, 10th and Fallon, offer a varied exhibition for November, according to Paul Mills, Curator.

European paintings from the Emanuel Walter collection of the San Francisco Art Association, augmented by other European paintings in the Museum's Maganini and Porter collections, will be presented in the first gallery.

David Park, who won the "Guest of Honor" exhibition award in last year's museum annual, will exhibit fugurative paintings. Park was the first abstractionist to explore figure painting from an abstract standpoint.

The Oakland Art Association will present its first annual exhibition; and two small exhibitions will mark "Asia Month."

Among the Museum's special events are lectures and films each Wednesday evening, and lecture tours.

## SAN FRANCISCO MUSEUM OF ART

The San Francisco Museum of Art, War Memorial Building, Civic Center, under the direction of Dr. Grace L. McCann Morley, has arranged a special group of exhibitions and events for this month, including the following:

EXHIBITIONS: Thirty Second Annual Exhibition of the San Francisco Women Artists; Art in Asia and the West, and Munch and Expressionism in Prints—an exhibition to illustrate varied aspects of Asian traditions and their importance for art in the West.

EVENTS: Lecture Tours based upon current exhibitions; Wednesday Evening art programs; Art for the Layman, Tuesday mornings at 10 o'clock. Adventures in Drawing and Children's Saturday morning Art Classes will be recessed during November.

The Museum is open daily. (Will be closed Thanksgiving Day.)

## CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., is presenting the following special exhibits and events during November:

EXHIBITIONS: Paintings and Drawings by Raymond Brossard; Navajo Sand Paintings by David Villasenor; Paintings by Gail Cole; Paintings by Vera Adams Davis, the 2nd Pacific Coast Biennial Exhibition — and exhibit assembled by the Santa Barbara Museum of Art and presented in San Francisco with the cooperation of that museum and the Art Museums of Portland and Seattle; Paintings by Jerrod Davis, and World Travel Posters — an exhibition presented in cooperation with Foreign Government Tourist Offices in San Francisco.

The Achenbach Foundation for Graphic Arts: The Printmaker 1450-1950 — about 120 master prints illustrating all important stages of printmaking through the ages; and William Blake (1757-1827) — an exhibition honoring the great visionary artist and poet on the 200th anniversary of his birth, with loan contributions from museum and private collections.

SPECIAL EVENTS: Organ recital each Saturday and Sunday afternoon at 3 o'clock; Art Classes for Children, Saturday mornings.

The Museum is open daily.

## M. H. deYOUNG MEMORIAL MUSEUM

The M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco, under the direction of Walter Heil, is presenting the following special exhibitions and events during November.

EXHIBITIONS: 18th Annual Exhibition of the Society of Western Artists, featuring Oils, Watercolors, Pastels, Graphic Art, and Sculpture; Paintings by Jamini Roy, an exhibition circulated by the Smithsonian Institution; The World of Cartier-Bresson, a retrospective exhibition of Photographs, 1930-1957.

SPECIAL EVENTS: Classes in Art Enjoyment for adults includes Exercises in Oil Paintings, Painting Workshop for Amateurs and Seminars in the History of Art. Classes for the Children include Picture Making, Art and Nature and the Art Club—Saturdays.

The Museum is open daily.

## EAST AND WEST ART EXPLAINED

The historical and contemporary interaction between the art of the East and the West is explored in a major exhibition of painting, sculpture and architecture now showing at the San Francisco Museum of Art, Civic Center.

Works of art from the Hindu, Buddhist and Islamic tradition, borrowed from the country's great museums and private collectors is displayed in conjunction with contemporary art and architecture from both Asia and the United States.

Assembled and presented by the San Francisco

Museum of Art, this exhibition is planned to mark Asia Month.

### SCULPTORS COMMISSIONED TO CREATE WORKS FOR U.S.

Alexander Calder, Isamu Noguchi, Mary Callery, Jose de Rivera and Harry Bertoia, all citizens of the United States, have been commissioned to create sculpture to be used as decorative objects at the U. S. Pavilion of the Brussels Universal and International Exhibition in Belgium next year, according to an announcement by Howard S. Cullman, U. S. Commissioner General to the Fair.

The works of other U. S. sculptors also will be represented and on view at the Pavilion, on a loan basis borrowed from museums, institutions and other sources.

Selection of the sculptors was made by the U. S. Commissioner General and Edward D. Stone, architect of the Pavilion, based upon recommendations of the U. S. Fine Arts Advisory Committee of which Thomas C. Howe, director, California Palace of the Legion of Honor, San Francisco, is a member.

### INDIAN ARTIST WORK AT M. H. deYOUNG MUSEUM

For the second time since the end of World War II, the work of Jamini Roy, the Indian artist who once refused Mahatma Ghandi a private showing, is being shown in the United States.

Circulated by the Smithsonian Institution Traveling Exhibition Service, twenty-one paintings by the internationally known Indian painter are currently being shown at the M. H. deYoung Memorial Museum in Golden Gate Park, San Francisco.

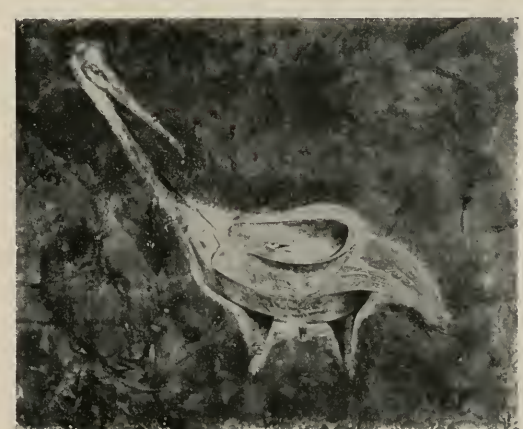
# SAN FRANCISCO MUSEUM OF ART

## WAR MEMORIAL BUILDING CIVIC CENTER

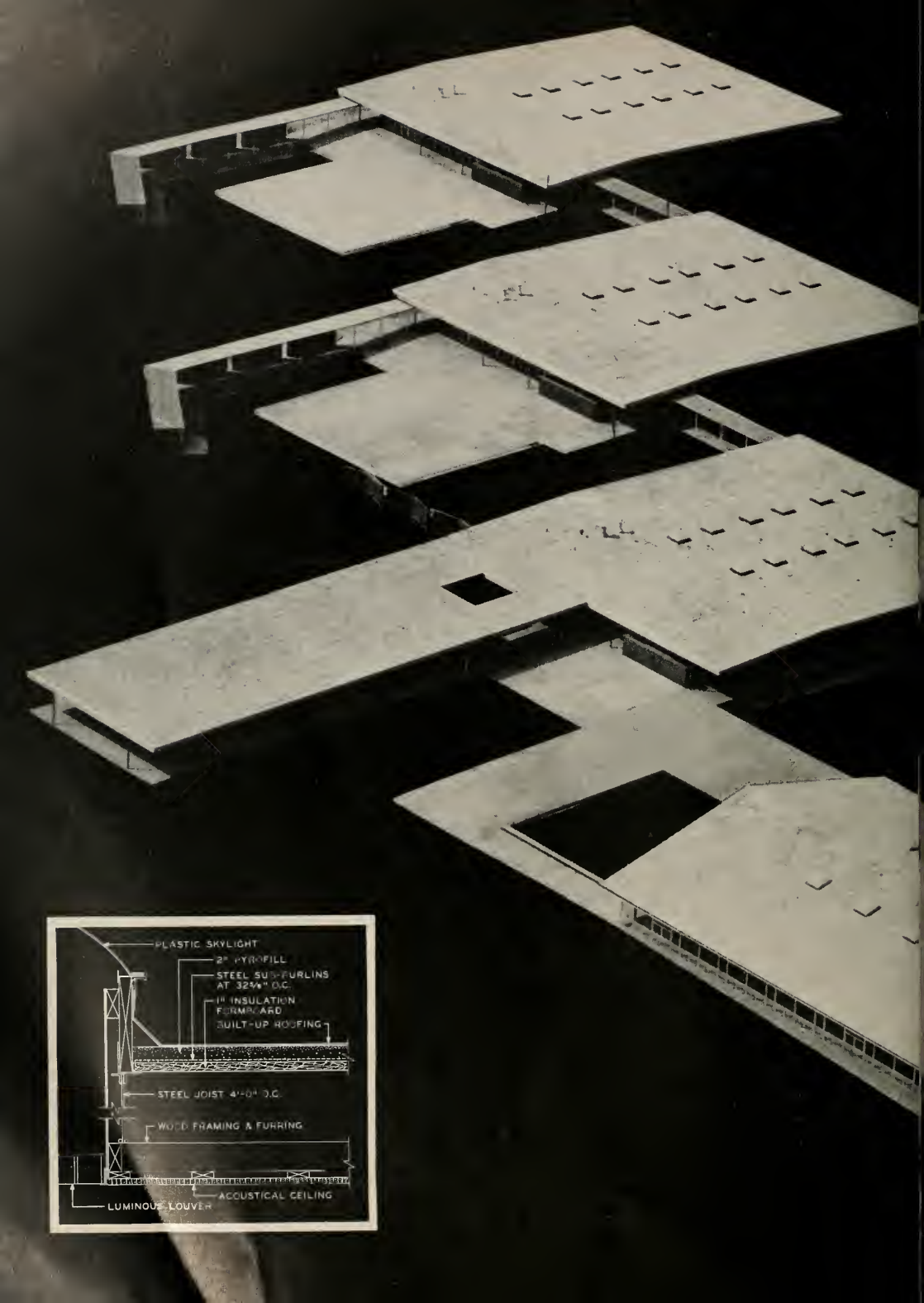
CEREMONIAL BRONZE TAKING
THE FORM OF A BIRD
1947

By
Morris Graves

Who deeply affected by Oriental art, illustrates exchange between Asia and the West in art.



Lent by the Seattle Art Murseum—Gift of Mr. and Mrs. Philip S. Padelford.


PLASTIC SKYLIGHT
2" PYROFILL
STEEL SUB-PURLINS AT 32⅛" O.C.
1" INSULATION FORMBOARD
BUILT-UP ROOFING
STEEL JOIST 4'-0" O.C.
WOOD FRAMING & FURRING
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*for better schools . . . at lower cost*

# PYROFILL*

## GYPSUM ROOF DECK SYSTEMS

PYROFILL gypsum concrete poured over U.S.G. formboards on steel framing provides all these outstanding advantages:

FLEXIBILITY—Variety of U.S.G. formboards provides the versatility to meet the most exacting requirements of specific requests for economy, appearance, fire resistance, insulation, strength and sound absorption.

LIGHTWEIGHT—PYROFILL roof deck weighs only 10 to 12 lbs. per square foot; permits important savings in structural steel and footings.

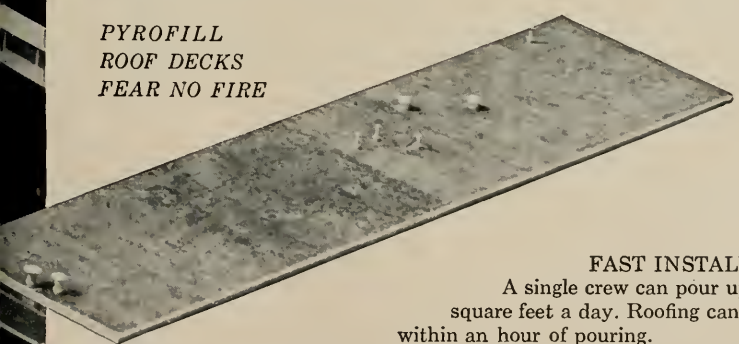
STRENGTH, DURABILITY—PYROFILL has a safety factor of 10 or more under normal roof loads. Decks erected over 30 years ago still give excellent service.

LOWER INSURANCE COST—PYROFILL fears no fire; often permits savings of 30% or more on insurance.

LOW MAINTENANCE COSTS—PYROFILL is an ideal base for built-up roofing; cuts roofing maintenance to a minimum.

ADAPTABLE—PYROFILL roof decks are suitable for flat, curved, or pitched roofs.

*PYROFILL ROOF DECKS FEAR NO FIRE*



FAST INSTALLATION—A single crew can pour up to 30,000 square feet a day. Roofing can be applied within an hour of pouring.

STRUCTURAL RIGIDITY—Bulb tee sections reinforce slab and along with incombustible gypsum provide lateral stiffening of structural steel framing.

SEISMIC FORCE RESISTANCE—Expensive cross bracing can be eliminated by using the PYROFILL deck as a horizontal diaphragm. PYROFILL meets the requirements of Uniform Building Code, California Division of Architecture, and all codes of the city and county of Los Angeles.

For full information, see Sweet's Catalog, Section 2e/Un, contact your U.S.G. Representative, or write Industrial Sales Department, 2322 West Third St., Los Angeles 54, California. For a new look at roof decks, be sure to ask about U.S.G.'s new color sound film, "Design for Tomorrow."

## UNITED STATES GYPSUM

**the greatest name in building**

UNITED STATES GYPSUM

*T.M. Reg. U.S. Pat. Off.

Standard A.A.U. 35 feet by 75 feet swimming pool at Golf Club

# HACIENDA SWIMMING POOL

La Habra, California

Architects:

BALCH

BRYAN

PERKINS

HUTCHASON

Contractor:

DAKAN ENGINEERING CO.

**HIGH BOARD DETAIL: Three meter A.A.U. mounted on cantilever pad and brick pylan, precast concrete steps at rear.**

Completion of the new swimming pool area at the exclusive Hacienda Golf Club in La Habra, Southern California, at a cost of nearly $80,000 has been announced to members by James W. Parks, Hacienda Inc., president.

The new pool development is part of a Club remodeling and expansion project, which when completed in the near future, will represent an additional investment of more than $300,000.

Included in this phase of the pool area improvement is a standard 35 foot by 75 foot, A.A.U. swimming pool and a new, modern shower and locker building for use in conjunction with the swimming pool. A spacious sun shelter is also a part of this work as is a children's wading pool and the entire area is enclosed in a high steel wire fence with attractive ornamental brick corner posts.

Both the large swimming pool and the children's wading pool are constructed of poured concrete, reinforced with steel for durability. Colorful ceramic tile gutters have been included in both pools, and each has a cast stone coping and is surrounded by broad stained concrete decks.

Swimming pool equipment includes the regulation low and three-meter aluminum type Olympic Games diving boards with adjustable fulcrums. The high board is mounted on a unified cantilever concrete pad and brick pylon, with cantilever pre-cast concrete steps.

The pools are completely equipped with water heater, filter, and the larger pool has racing lanes for special sports events and chrome steps.

**SUN SHELTER**

**At north side of pool, beyond the paved pool deck, is a large roofed sun shelter, open to the prevailing breeze.**

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COMPANY

WITH A $10,000,000

A YEAR BUILDING

PROGRAM

By FRED W. JONES

EXECUTIVE STAFF—Ralph Carlson, General Manager (left to right); Rex Valpreda, Vice-President and Pierce Lathrop, President.

"Do it yourself."

It's barely possible that this frequently quoted slogan may have originated in Berkeley when Pierce Lathrop decided to build his home himself because no regular contractor was available.

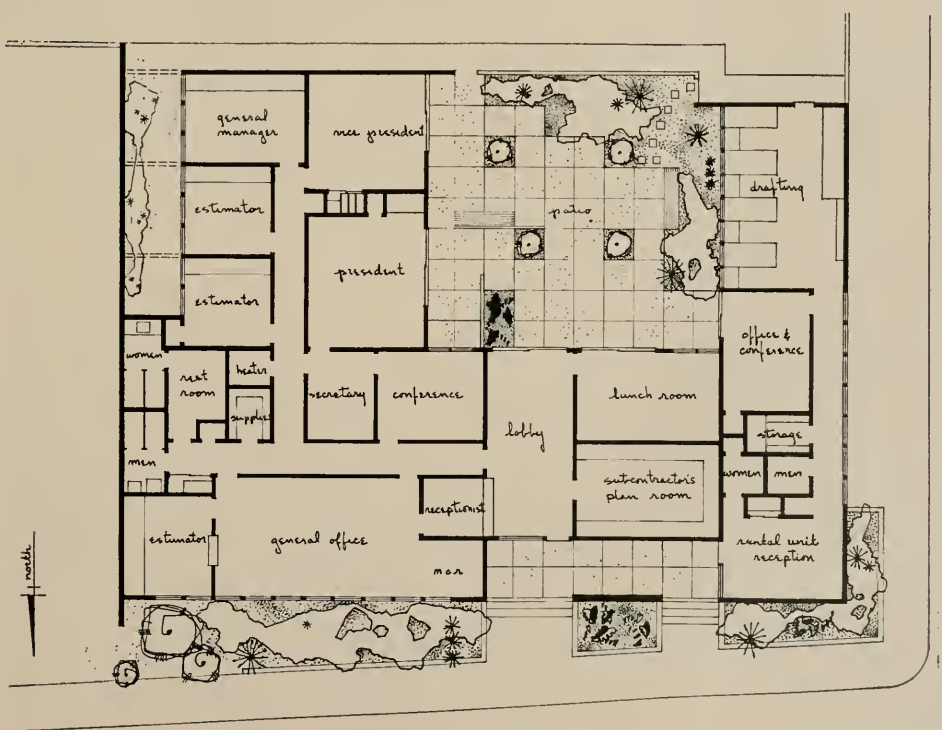
This was in the 1940's when Lathrop came out of the Army as a Lieutenant Colonel, following three years of staff duty overseas.

Encouraged by his success as a house builder, coupled with a background of three years with Westinghouse Electric Company and time spent with a prominent construction firm, Pierce decided to do it yourself again, this time with the aid of a modest staff of co-workers.

And that was the start of the F. P. Lathrop Construction Company (October, 1952). Virtually a five man organization, success marked its operations from the beginning and today, at its fifth anniversary, the firm ranks with the top construction companies in the San Francisco Bay Area, doing $10,000,000 business a

**INTERIOR—All Souls Episcopal Church in Berkeley, California. Ratcliff and Ratcliff, Architects.**

**PLAN Lathrop Offices**



**RESIDENTIAL SUB-DIVISION at Pleasanton, California. Shows versatility of Lathrop Construction Company in homes and industrial and commercial building. Conventional and "Ranch Type" homes included in the tract.**

year with an office staff of 15 persons and a field force of from 150 to 400 skilled craftsmen.

Good management and sound building practice have earned the company an enviable reputation in the construction field. The firm's working methods and procedures have proved exceptionally efficient and economical for its clients. Its relations with owners, architects and engineers have been most cooperative.

Speed, economy and cost are factors which have contributed to the successful handling of varied types of construction such as industrial and commercial buildings, apartment houses, schools, churches and custom built homes.

"Our building operations," quoting Mr. Lathrop, "extend from the Oregon border to Southern Alameda County. We have recently moved into our own home, a one story ranch type office building at 800 University Avenue, Berkeley, within one block of the new Eastshore Freeway. The building and land represent an expenditure of nearly $200,000. The structure

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Berkeley, California

Ratcliff and Ratcliff
Architects

PLYMOUTH HOUSE—for First Congregational Church in Berkeley, California. Scott Haymand, Architect.

was designed by Thomas M. Culbertson, A.I.A., who is our architectural consultant."

Pictured are some of the more important projects completed by the company, including a $4,000,000 plant in Newark, Calif., for the American Forest Products Corporation. This major construction job was built in two sections, the first a $2,500,000 factory which was finished in the record time of 120 days. The second unit, a paper mill, was built a year later at a cost of $1,500,000.

Other industrial work includes a can factory and


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**Edward Cerruti, Architect**

warehouse for the California Packing Corporation; washroom facilities of Kaiser Gypsum at Antioch; manufacturing plant for Knapp, Inc., Emeryville; manufacturing building for Benson Enterprises, Inc., San Leandro; Hovey Machine Products plant, Berkeley, and Encinal Terminals warehouse, Alameda, for the California Packing Corp.

Listed among the commercial buildings are: Lucky Supermarket, Orinda; automobile display and service building, Berkeley, for the Shepard Cadillac Company (featured in the September issue of Architect & Engineer); American Forest Products office building, San Francisco; warehouse and sales building for Colyear

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**AERIAL VIEW of plants built for American Forest Products Corp'n at Newark, California. Corrugator plant at extreme right; Paper Mill at left. Designed by Raymond E. Layton & Associates.**


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**WASHROOM: Interior view of Kaiser Gypsum Company plant at Antioch, California.**


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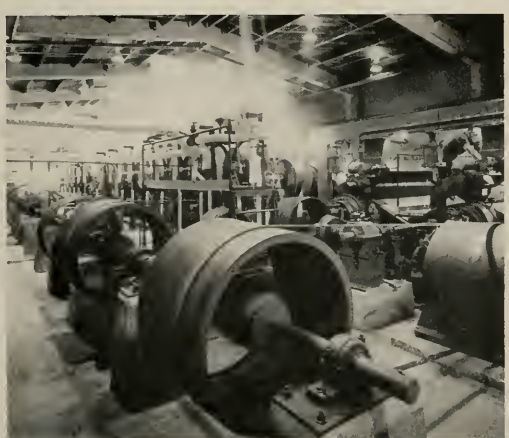

Photo shows Steam Piping and Drying Rolls, Line Shaft, Paper Mill, Newark, Calif.

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**Bird's eye view of the California Packing Corporation's Oakland can factory and warehouse.**

**BELOW is progress construction view.**

AERIAL VIEW
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Alameda, California

Built for the
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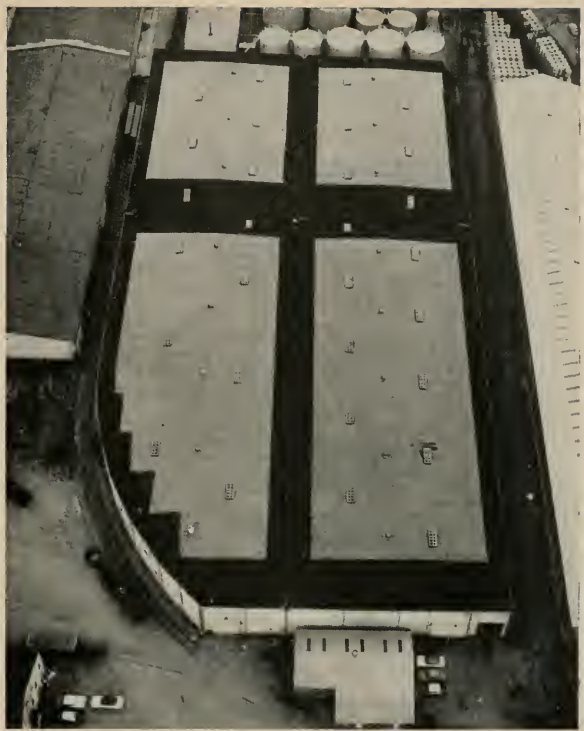

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Motor Sales Co., Oakland; and now under construction, General Motors Training Center, San Leandro.

Public buildings, completed or under construction, include the Live Oak Park Community Center and Cragmont Elementary School, Berkeley; two gymnasiums for the Contra Costa Jr. College; Phi Kappa Sigma Fraternity house, Berkeley. Contracts have lately been awarded the company for a school building at Yreka to cost $620,000; Aetna school to cost $778,000 and the Tahoe Valley school to cost $580,000.

Church buildings include All Souls Episcopal in Berkeley; St. Peter's Episcopal Church, Oakland; Plymouth House for the First Congregational Church, Berkeley, and pending completion, the Northbrae Community Church, Berkeley, and St. Paul's Church, Walnut Creek.

Other projects under construction or completed include the Ridge Road and White Apartments, Berkeley, medical office buildings and home development projects in Pleasanton and Orinda.

Associated with Mr. Lathrop are Rex C. Valpreda, vice president, who studied at the University of California, did combat duty in Europe during World War II, and later formed the Byers-Valpreda Development Company, which has a joint operating agreement with the Lathrop Company. Douglas C. Skalfe, treasurer, is president of Skalfe & Co., investment securities firm. A Stanford man, he served as Navy Commander in World War II. R. E. Carlson, general manager, studied at California Polytechnic Institute and spent 12 years in the construction business before joining the Lathrop organization.

# Transit and Transport To Marin County

## A PART OF THE BAY AREA RAPID TRANSIT REPORT

PART II

By GEORGE S. HILL
Consulting Engineer

The capacity of the Golden Gate bridge can be considerably increased by making the two middle lanes reversible to accommodate the preponderant traffic. This method is used on the George Washington Bridge over the Hudson River. According to the press, Daniel DelCarlo, member of the Golden Gate Bridge board of directors is of the opinion that the State will have wasted thousands of dollars by building a freeway over the Waldo grade if they go through with the plan to build a Tiburon Bridge. As the area tributary to a bridge to the Tiburon Peninsula would overlap the area of the Golden Gate Bridge and Highway District, it obviously would impair the earning power besides weakening the credit of the entire toll structure which the Stanford Research Institute has recommended as a source of revenue to finance a Bay Area Rapid Transit System. In the 12 months ending last June 30, 15,676,971 vehicles crossed the bridge, an increase of 6.3% over the previous fiscal year.

### A Parallel Golden Gate Bridge

When a second bridge becomes necessary years from now, a bridge of the same size and type would cost less than one in another location assuming that another high-level bridge with long spans would be required by the engineers of the U.S. Army. Also it would be far less objectionable from the aesthetic standpoint and could be under the jurisdiction of the Golden Gate Bridge and Highway District. It could accommodate one-way traffic on each bridge.

### Alterations to Existing Bridge

According to both the 1930 and the 1937 reports of the Chief Engineer, Mr. Strauss, the Gilden Gate Bridge is strong enough to sustain electric railway trains. The firm of Parsons, Brinkerhoff, Hall and McDonald made an independent check of the strength of the bridge and determined that rapid transit can be added without any compensating weight reduction, but that it would be advisable to alter the sidewalks, railings, and curbs, in order to provide reserve capacity and to improve the aerodynamic characteristics of the bridge.

Reconstruction of the roadway is not necessary unless it is specified that the total dead load be maintained at its present value. The cost of reconstruction, $12,000,000 includes sidewalks, railings, curbs, and one lane of roadway adjacent to each curb. The only safe location would be to add the two tracks beneath the existing deck. This would necessitate removing some of the wind bracing recently installed, and cutting through several of the concrete piers.

The final decision on whether the bridge could be modified to fit in with a rapid transit system rests with directors of the bridge district. Train speed might be limited. That suspension bridges should be used sparingly and only when no other reasonable alternative is available is evident from the fact that of the entire design load, dead and live, of the Golden Gate Bridge, only 16% is live load. The wind bracing recently added reduced the live load capacity to about 10%. The spans of such bridges could be increased to such an extent that they would support their own weight only, with no live load capacity whatsoever.

### San Francisco-Tiburon Bridge Project

Preliminary plans for a San Francisco-Tiburon Bridge prepared by the State Department of Public Works would be for the longest high-level crossing in the world. It would be approximately 27,000 feet long compared with the 22,720-foot length of the San Francisco-Oakland Bay Bridge. Including approaches, the San Francisco-Tiburon project would be nearly nine miles long, and even without provision for rail lines its cost could easily exceed $200,000,000. Towers of its three suspension spans would rise 615 feet above the water, second only to the Golden Gate's 746-foot towers. Vertical clearance of the two 3600-foot Bay spans would be 220 feet, indentical with the Golden Gate Bridge. Vertical clearance of the 2500-foot Angel Island-Tiburon span would be 185 feet. There would be two decks, which would carry as many as 12 lanes of traffic in all or as many as 10 lanes, plus a double-track rapid transit line.

On the San Francisco side, the approach would connect with the planned Embarcadero, Central, and Golden Gate freeways in the vicinity of Broadway and Polk Street, on the western slope of Russian Hill.

The bridge structure itself would pass high above the Aquatic Park lagoon, with one massive pier outside the tip of the lagoon breakwater, and another at Beach and Polk Streets. Toll plaza facilities would be built on Angel Island reached by three and a half miles of suspension and truss spans. Another 5400-foot suspension bridge would link Angel Island with the Tiburon peninsula.

The State engineers claim that a crossing directly above Aquatic Park was necessitated by the City's own freeway plans which call for a north-south Central Freeway running slightly east of Polk Street. Unless the bridge itself could be reduced in height other locations would be equally objectionable. Rail connections from high level to subway would be difficult. It is a fundamental error in city planning to build freeways and huge highway bridges before providing for rapid transit.

### Rapid Transit Tube to Marin County

The arguments for using the Golden Gate Bridge for rapid transit trains to Marin County are very little different from those for using the Bay Bridge for rapid transit to the East-Bay cities, and most of the arguments for a trans-Bay sub-aqueous tube would apply equally for a tube to Marin County.

Although the maximum depth of water at the Gate is 382 feet by the latest U.S. Coast & Geodetic Survey charts, the maximum depth on a line from the Aquatic Park to the Sausalito Ferry is but 82 feet which is no more than that between San Francisco and Oakland. The distance between pier-head lines is 4.4 miles to Sausalito compared with 3.3 miles to the Oakland Pier. The route is 1½ miles shorter


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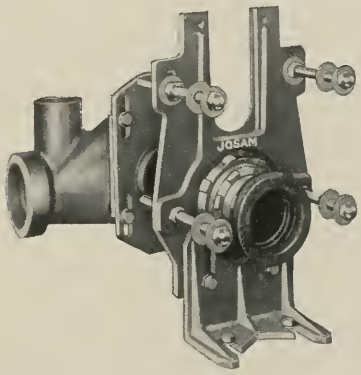


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than that via the Golden Gate Bridge. In order further to justify a tube for rail use only, its size could be increased to permit its use for freight trains at night and during the off-peak hours. As railroads derive their principal revenue from freight, this connection would have solid investment value. This would be an extension to Marin County of the State-owned Harbor Belt Line. By "picka-back" service, this freight line could relieve the Golden Gate Bridge of much of its truck traffic.

The traffic studies made by Sydney J. Taylor, Jr., in 1935 show conclusively that most of the truck traffic crossing the Golden Gate Bridge originates in or is destined for the central business district of San Francisco and that the coast-wise traffic is negligible. Commuters could park their cars in Marin County and take the rapid transit trains directly to the business center. The tube would not interfere with the use of Aquatic Park as it would have 50 feet of navigable water over it. The grade could be about 1½%. When one realizes that much of the value of San Francisco real estate along Pacific Heights, Russian Hill, and Telegraph Hill is based upon the fine marine view, it would be difficult to justify the construction of another highway bridge of the type used for the Richmond-San Rafael crossing.

A rapid transit tube would cost about $120,000,000 to build, but there would be certain credits to offset its cost. Having built this tube, neither a Tiburon Bridge nor a second Golden Gate Bridge would be necessary in the forseeable future, changes in the existing Golden Gate Bridge would be unnecessary, and a freeway west of the Twin Peaks from the county line to the Golden Gate Bridge could be dispensed with. A preliminary estimate of these and other credits against the cost of a sub-aqueous tube is as follows:

| | Dr. | Cr. |
|---|---|---|
| Tube | $120,000,000 | |
| San Francisco-Tiburon Bridge | | $200,000,000 |
| Second Golden Gate Bridge | | 100,000,000 |
| Alterations to Golden Gate Bridge | | 12,000,000 |
| West of Twin Peaks Freeway | | 63,000,000 |
| Golden Gate Freeway | | 50,000,000 |
| Alternative Route Tunnels | | 15,000,000 |
| | | $440,000,000 |

A rapid transit tube would have a potential capacity of 80,000 persons per hour, and that of a 12-line highway bridge, 60,000 persons per hour. If rapid transit is to provide relief from the necessity of building so many highway bridges and the freeways serving them, it would be logical to build the rapid transit lines before proceeding with the freeway program. (Conclusion)

---

# *MODERN*
# SPECIFICATIONS WRITING

**By SPENCER B. LANE**
**Specifications Writer for**
**John Carl Warnecke, A.A.I., Architect**

The construction industry, like all industry today, is changing rapidly. Modern specifications have to keep pace with these changes or they become obsolete.

New materials are being developed, new methods of producing old, familiar materials are being devised. It is up to the architect or engineer to decide what new materials he will use, what new production methods he will accept. After this decision has been made, it is up to the specification writer to set down clearly what new materials will be accepted, and under what limitations.

Concrete used to be specified as one part cement to so many parts of gravel or rock. That was all, and the measuring was done by counting the number of shovels of each that went into the mixer. Concrete today is controlled by careful tests of aggregate, and careful weighing of all ingredients, including the water. As a result a dependable product is secured. This is only one example of many changes.

The specification writer must know what the modern practice in making the concrete amounts to in order to write specifications that meet modern conditions. Only when he knows can he produce the specifications the architect or engineer should send out with his plans for bids.

But knowing is not enough. He must be able to put down on paper in simple English just what is wanted and how it is to be used.

The bidder must know what he will be required to furnish if he is going to submit a bid trimmed of extra dollars to take care of uncertainties. The manufacturer of materials and equipment must know what he will be called on to supply. The time allowed to complete the work and the equipment required or acceptable must be set down if there are to be any limitations. The only reason he reads the specifications is to get this information.

Modern man does not have time to work out word puzzles to discover the meaning. He expects to find the meaning on top of the words, not buried under

them. The human element enters into specifications more and more as the complications of the industry increase. The specification writer must adapt himself to modern reading habits, not expect the reader to conform to his ideas.

This means that specifications must be in readable language. They must be interesting to the reader, and the reader is interested only in getting the facts with as little effort as possible. This means the words used should be kept at a minimum, but enough words must be used to make the meaning clear.

Every newspaper man knows that a paragraph should start by telling the reader what it is about. When the general contractor comes to a division regarding elevators, he skims over it, notes that there is an elevator, and lets the elevator subcontractor worry about the detailed requirements. If he has to read half a page of details before he finds out that it is about elevators he feels that he has been fooled.

The use of short sentences and simple words is an important consideration. The use of long, involved sentences that leave the reader with doubt of the meaning is confusing, not clarifying. If the long sentence has to be read a second time, it is likely to be skipped. If it has to be read more than twice to get the meaning, it is almost sure to be skipped.

Effective specifications should be written as the plans are being developed. When they are put together in a rush just a few minutes before the deadline they are more than likely to be seriously at fault. The specifications are as important as the drawings. They should receive as much attention as the drawings. The copying of old paragraphs blindly is dangerous. Recently a specification was issued calling for sash to be glazed with the bulge of the glass outside. This was a survival of the days when window glass was blown in cylinders and straightened out. It is a method that has not been used for at least twenty years.

The modern specification writer needs a background of knowledge of the construction industry plus ability to write in clear and concise language that is easy to read. The day has passed when specifications could be written by the draftsman who made the drawings in the last couple of hours before the deadline, just as the movement of earth by wheeler scrapers drawn by a couple of mules has passed into history.

The Construction Specifications Institute was organized to provide training for specification writers capable of writing the kind of specifications demanded by modern conditions. That this is a real need of architects and engineers today has been proved by the rapid growth of the organization throughout the country.

The institute does not offer courses to educate

(See Page 34)


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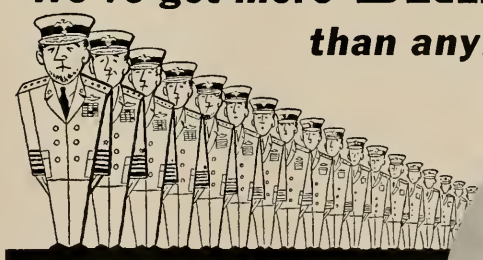

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MARIO GAIDANO, San Francisco architect, won a national award for outstanding achievement for his design of Sandy' Kitchen, a restaurant in the Stanford Shopping Center, Palo Alto, in the National Interiors Award Program conducted annually by Institutions Magazine of Chicago.

## REYNOLDS MEMORIAL AWARD TIME EXTENDED BY AIA

The American Institute of Architects announced that because of world-wide interest, extra time would be given to make nominations for the 1958 R. S. Reynolds Memorial Award. A $25,000 honorary payment to the architect making the "most significant contribution to the use of aluminum" in the building field.

Edmund R. Purves, AIA Executive Director, said the first award (made last year) attracted 86 nominations from 19 coutnries. Nominations must be made by either a Chapter of the AIA, or any architects' society or group outside of the U.S., or any college or university. A five man jury will judge the nominations and their selection will be announced at the annual convention of the AIA in Cleveland, Ohio, July 11, 1958.

Directors: David Vhay, Edward S. Parsons, M. DeWitt Grow, John Crider, Lawrence Gulling. Office of President, 131 W. 2nd St., Reno.

LAS VEGAS: Walter F. Zick, President; Aloysius McDonald, Vice-President; Edward B. Hendricks, Sec.-Treas.; Directors: Walter F. Zick, Edward Hendricks, Charles E. Cox. Office of Secy., 106 S. Main St., Las Vegas.

Nevada State Board of Architects:

L. A. Ferris, Chairman; Aloysius McDonald, Sec.-Treas. Members: Russell Mills (Reno), Edward S. Parsons (Reno), Richard R. Stadelman (Las Vegas). Office 1420 S. 5th St., Las Vegas.

Northern California Chapter:

William Corlett, President; Donald Powers Smith, Vice-President; George T. Rockrise, Secretary; Richard S. Banwell, Treasurer. Directors: W. Clement Ambrose, John Kruse, Bernard J. Sabaroff, Corwin Booth. Exec. Secty., May B. Hipshman. Chapter office, 47 Kearny St., San Francisco.

Orange County Chapter:

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Pasadena Chapter:

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San Diego Chapter:

Sim Bruce Richards, President; Raymond Lee Eggers, Vice-President; William F. Wilmurt, Secretary; Fred Chilcott, Treasurer. Directors: Frank L. Hope, Samuel W. Hamill, Victor L. Wulff, Jr. Office of the Secty., 2868 Fourth Ave., San Diego.

San Joaquin Chapter:

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Santa Barbara Chapter:

Darwin E. Fisher, President (Ventura); Wallace W. Arendt, Vice-President (Santa Barbara); Donald H. Miller, Secretary; Donald A. Kimball, Treasurer (Santa Barbara). Office of Treas., 1045 Via Tranquila, Santa Barbara.

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Southwest Washington Chapter:

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Producers' Council—Southern California Chapter:

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Producers' Council—Northern California Chapter:

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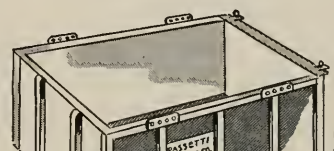
Henry C. Collins, President; Leonard M. Tivel, Vice-President; Leonard P. Grover, Treasurer; Marvin E. Hirchert, Secretary. Office of Secty., 585 Whitewood Drive, San Rafael.

## SIXTH ANNUAL REGIONAL CONFERENCE

Guest speakers at the Sixth Annual Regional Conference, Gearhart, Oregon, recently included Leon Chatelain, national president of the American Institute of Architects; Henry Hill, northern California architect: Francis Joseph McCarthy, F.A.I.A., San Francisco; George Jette, landscape architect professor at the University of Oregon; Jose Louis Sert, A.I.A., New York, and dean, graduate school of design, Harvard University, and others.

Discussions were devoted to Awards and Scholarships, Chapter Affairs, Collaboration of Design Professions, Community Development, Education, Home Building Industry, Hospital and Health, Office Practice, Preservation of Historic Buildings, School Buildings, and Public Realtions.

Many architects from Washington, Oregon, Idaho and Montana were in attendance.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Structural Engineers Association of Northern California

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Structural Engineers Association of Central California

J. F. Meehan, President (Sacramento); A. L. Brinckman, Vice-President (Sacramento); W. F. Pond, Secy.-Treas. Directors: A. L. Brinckman, J. J. Doody, H. C. Green, J. F. Meehan, E. F. Zancai. Office of Secy., 7045 Cromwell Way, Sacramento.

Structural Engineers Association of Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 2808 W. Temple St., Los Angeles 26. DUnkirk 5-4424.

CIVIL ENGINEERING SCHOLARSHIP: A $15,000.00 yearly civil engineering scholarship program, under the supervision of the National Society of Professional Engineers, has been established by Armco Drainage & Metal Products. Five $3,000 scholarships will be warded annually.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—Los Angeles

"Planning and Construction of Works for Snowy Mountains Hydro-Electric Authority" will be the subject of discussion at the December 11th meeting to be held in the Rodger Young Auditorium. Raymond A. Hill, member of the firm of Leeds, Hill and Jewett will be the guest speaker.

The Snowy Mountains Project is a combined Hydro-Electric and Irrigation Project located in the Snowy Mountains of Australia, a region northwest of Sidney betwen New South Wales and Victoria. It involves five major dams and reservoirs and three major tunnels.

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## AMERICAN SOCIETY OF CIVIL ENGINEERS—San Francisco

Robert W. Jackson, Western Manager, Public Relations for the General Electric Company, was the guest speaker at the Annual Awards Dinner and presentation of the Achievement Award of 1957 and the Honor Award of 1957. This Annual Awards Dinner has become an outstanding event in the building industry of Northern California and is sponsored by a large list of professional societies, groups and the Producers Council.

Recent new members include: George C. Bestor, Carmel; Harter R. Bruch, San Lorenzo; Lawrence Chee, Harold Y. G. Fing and Cecil E. Pearce, San Francisco; Walter G. Culin, Lafayette; Lincoln B. Grayson and Joseph Pinto, Oakland; W. Norman Kennedy, Thomas O. McCutchan and Richard R. Walch, Berkeley; Thomas D. Mill, Hayward; L. Dale Mills, Richard F. Poston, J. Wade Switzer and R. H. Williamson, Redwood City; Harry K. Okino, Albany, James J. Putkey, Richmond; James E. Roberts, Reedley; Glen R. Simpson, Sonoma; Gary G. Stokes, San Jose, and Robert D. Swisher, San Carlos.

ENGINEERS WEEK: Eric S. Warner, Chief Engineer, Standard Oil Company of California, and R. L. Inglehart, Chief Engineer of the Shell Development Company, will serve as Co-Chairmen of the 1958 Bay Area Engineers Week Committee. Engineers Week will be observed the week of February 16-22.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

"Gypsum Construction and Diaphragms" was the subject of a talk by Henry J. Schweim and G. L. Bostwick at the November meeting held in the Rodger

American Society of Civil Engineers
Los Angeles Section
George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Secy-Treas.; 4865 Park Ave., Riverside. Ventura-Santa Barbara Counties Branch, Robert L. Ryan, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section
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Structural Engineers Associatiton
of Oregon
Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)
R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

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Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

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Young Auditorium.

David M. Wilson and R. W. Binder have been appointed delegates to the Structural Engineers Association of California for 1958-59.

Among new members are: Eugene T. Brown, Member; Ray E. Lewis and Norman R. Tremblay, Student; George J. Lusich, Jerry Strickler and Victor L. Taugher, Associate; and Stanley G. Zynda, Affiliate.

## STRUCTURAL ENGINEERS ASSOCIATION NORTHERN CALIFORNIA

"The Mexico City Earthquake" was the subject of the November meeting, held jointly with the Society of American Military Engineers in the Officers Club, Presidio of San Francisco.

Speakers included John J. Gould, Consulting Engineer, John J. Gould and Henry J. Degenkolb, Consulting Engineers; John M. Sardis, Consulting Engineer, John Sardis and Associates, Consulting Engineers; and Karl V. Steinbrugge, Structural Engineer, Pacific Fire Rating Bureau. All three of the speakers were in Mexico City during the earthquake of July 28, 1957 and each gave his observations of the damage, or lack of damage, to specific structures. Each talk was supplemented with slides of actual scenes of the people and quake area.

Henry J. Degenkolb and John M. Sardis have been appointed delegates to the SEAC for the ensuing year.

New members are: Kenneth R. Wyatt, Civil Engineer, Member; Dewey Lee, Jr., Structural Designer, Affiliate, and Kenneth E. Beebe, Engineer, Junior Member.


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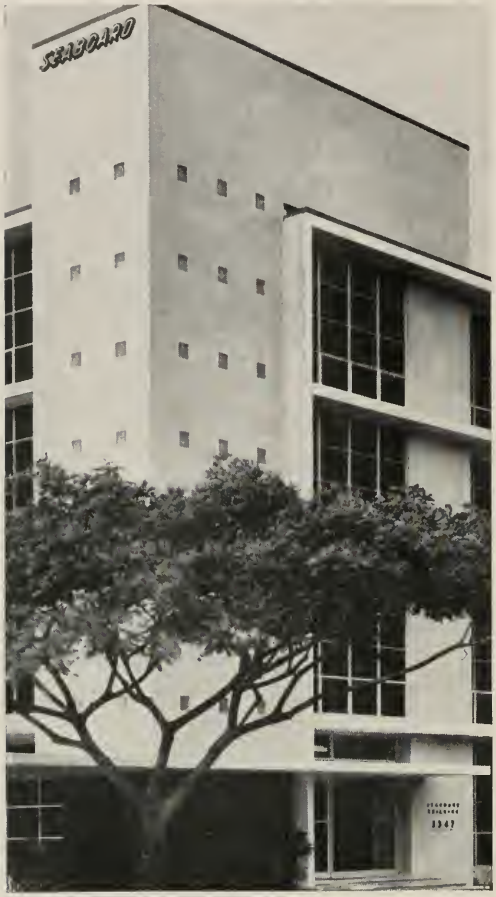


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# *ANNUAL MEETING* California Council Landscape Architects

**By LYNN M. F. HARRISS**
**Executive Secretary**

C. Mason Whitney, Berkeley Landscape Architect, was elected president of the California Council of Landscape Architects for the ensuing year at the Third Annual Convention of the organization at Monterey held on October 17-20. The Council, a State coordinating body, includes the California Association of Landscape Architects, Bay Area and Sacramento chapters, the Northern and Southern California chapters of the American Society of Landscape Architects, and the California Institute of Landscape Architects at Los Angeles.

**Officers of the California Council of Landscape Architects look at future problems. Retiring president Jay A. Gooch, West Los Angeles (standing), president-elect C. Mason Whitney, Berkeley (left), and vice president-elect Courtland Paul, Pasadena.**

Courtland Paul, Pasadena Landscape Architect, was elected Vice President of the organization and will supervise arrangements for next autumn's convention at the Disneyland Hotel in Anaheim. Lynn M. F. Harriss, Oakland Assistant Superintendent of Parks, was re-named Executive Secretary.

Jay A. Gooch, West Los Angeles, outgoing president, presided at all sessions. The "Kick-off" luncheon featured Dr. Fred Stripp, Professor of Forensics at the University of California, who spoke on "The Layman Looks at the Landscape Architect." A panel discussion was a feature of the Saturday meeting. The moderator was Howard Boltz, Head Landscape Architectural Major, California Polytechnic College, Pomona. Panel

(See Page 34)

### YOUTH'S CLUBHOUSE

The Bostock Engineering Company, 3260 E. Florence Ave., Huntington Park, has completed drawings for construction of a 1-story concrete block Youth Club House in South Gate for the Optimist Club.

The building 48x100 ft. will be of composition roofing, wood trusses, concrete slab floor, 3-meeting rooms, office, kitchen facilities, heating and ventilating, restrooms, plumbing and electrical work.

### NEW HALL OF JUSTICE

Architects Confer & Willis, 366 40th Street, Oakland are preparing drawings for construction of a new Hall of Justice to be built in the City of Oakland at an estimated cost of $6,000,000.

The project comprises a new center; police department, jail, courts building to be flanked by a auto parking area under the projected extension of the overhead Eastshore Freeway. The basic design calls for a 10-story aluminum structure; a 2-story jail and a 3-story courts building.

The new facility will employ pneumatic tube communications, electrically operated jail doors, a criminology laboratory, employee cafeteria, exercise rooms, locker rooms, firing range, offices of the District Attorney and Public Defender, judges chambers, and court officials.

### BOYS PROBATION CAMP PLANNED

Architects Comeau & Brooks, 14542 Ventura Blvd., Sherman Oaks, have received approval of preliminary plans by the Los Angeles county board of supervisors, for construction of the proposed Boys probation camp at the Las Virgenes camp site off Malibu Canyon Road in Calabasas.

Plans provide for a dormitory, recreation hall, administration building, kitchen and mess hall, school, maintenance garage building, public toilets, garbage shed, incinerator, public address system and necessary site work. Estimated cost of the project is $699,254.

### SMALL CRAFT HARBOR

Architects Read & Zahn,, World Trade Center Building, San Francisco, are preparing plans for construction of a small craft harbor near Redwood City on San Francisco bay.

Construction will provide berthing facilities for boats up to 45 ft. in length, a drydock, launching ramp, boat supply and repair shop, clubhouse to include showers, bar, dining room, and additional recreational facilities. Estimated cost of the propject is $500,000.

### FHA BUSINESS RISES IN LA

Norman M. Lyon, Los Angeles District Director of the FHA, recently reported that the August processing in the Los Angeles FHA jurisdiction, which covers the 10 southern counties of Mono, Inyo, San Luis Obispo, Kern, Santa Barbara, Ventura, Los Angeles, Orange, San Bernardino and Riverside, topped the business for the office of any month for the past year.

He stated 2664 applications for home mortgage FHA insured loans were received and 2506 committments issued for such loans. The director stated that the business of the offices had progressively declined from August, 1956 until a low point in December of 1956 and January 1957, when the applications received were 865 and 1108 respectively, and the committments issued were 1108, and 994.

The Los Angeles office is therefore now doing nearly three times the amount of home mortgage business it did the first of this year.

### SWIMMING POOL AND BATH HOUSE

Architects Neptune & Thomas, 742 Colorado Blvd., Los Angeles, have received approval of schematic plans by the Los Angeles Board of Supervisors for construction of a swimming pool and bathhouse at the Jane Reynolds Park in Lancaster.

The bathhouse including women's and men's dressing rooms, showers, check rooms, cashier's area, manager's office, storage room, landscaping, and flood-lighting; 100x50 ft., swimming pool of poured-in-place concrete will cost an estimated $220,000.

### HOSPITAL FOR PLACERVILLE

Architect Erling Olanson, 4208 H Street, Sacramento, is preparing plans for construction of a new 53-bed Hospital building in Placerville, for the Marshall Hospital Association.

Plans call for construction of the new James W. Marshall Hospital at an estimated cost of $1,000,000.

Facilities will be a 1-story construction and will provide a 12-baby maternity ward, emergency unit, 2-surgical operating rooms, and all allied requirements.

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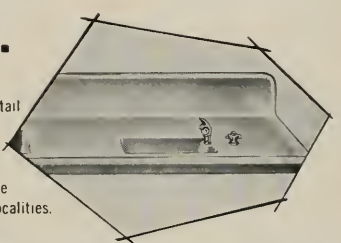

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## LANDSCAPE ARCHITECTS

(From Page 32)

members included: Wm. Penn Mott, Jr., Superintendent of Parks, Oakland; Raymond E. Page, Sr., Landscape Architect, Beverly Hills, Member of the California Board of Landscape Architects; Donald P. Van Riper, Supervising Landscape Architect, Division of Architecture, State of California, Sacramento; and Frank P. Lombardi, Senior City Planner, San Francisco City Planning Commission.

After a tour through gardens designed by members on the Monterey Peninsula, the convention wound up to a finale with the annual dinner dance whose theme was "The Mad Chapeaux." Masters of ceremonies were Robert Graves and John Staley, San Francisco Landscape Architects.


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### KAPPA INSTALLED AT UCLA

The Kappa Chapter of the University of California at Los Angeles was installed recently at the offices of The American Institute of Architects, with seventeen charter members.

Jean Driskel, national president, presided at the instalaltion with Mrs. Harvey E. White being named president for 1957-58. Sandra Ratner was named vice president; Colleen Bertolini, secretary; Susan Quarness, treasurer.

## SPECIFICATIONS WRITING

(From Page 27)

specification writers by mail in a few easy lessons. It does provide architects and engineers with an opportunity to learn of the assistance they can receive from specification writers, and with an opportunity to find out how other architects and engineers are solving their need for trained personnel. To accomplish this, the requirements of material men and subcontractors for definite specifications is secured from such men. They are given an opportunity to explain how specifications can be planned to meet the conditions of their operations.

Better specifications is a need of the construction industry today. The Construction Specifications Institute is working with the architects of the nation to help supply this need. The assistance and cooperation of the architects and engineers will assure the success of this attempt to assist the professions in developing their abilities to serve to the greatest possible extent.

*PHOTO CREDITS: Phil Fein Photos, Cover, Page 20; Ted Brooks Photo, Pages 12, 13; Barry Evans Photo, Pages 14, 15, 16, 17, 19, 20, 21, 22, 23; QA Architectural Arts Photo, Page 24; A Gerald Ratto Photo, Page 26; and Gressett Studio, Page 32.*

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## PAMPHLETS AND CATALOGUES

**GLASS REINFORCED PLASTICS. By Phillip Morgan. Philosophical Library, Inc., 15 E. 40th St., New York 16. 276 pages. Price $15.00.**

Text for this new edition has been thoroughly revised by the author, who is editor of "British Plastics," and many of the original chapters have been completely re-written. In addition there are completely new chapters on epoxide resins, the resin injection moulding process and on chemical plant applications. General content presents facts on raw materials, i.e., the resins and glass, to describe the fabrication techniques now in use and to discuss some of the problems of specialized applications. Techniques included are the standard commercial moulding processes, methods of mass production, resin injection and the manufacture of tube and rod. Numerous major fields of application are described including automobile, aircraft, body-building, electrical uses and chemical plant.

**STRUCTURAL DESIGN IN METALS—2nd Edition. By Clifford D. Williams and Ernest C. Harris. The Ronald Press Co., 15 E. 26th St., New York 10. 655 pages. Price $8.00**

The authors Clifford D. Williams, Chief Engineer of Patchen & Zimmerman, Engineers, Augusta, Georgia, and Ernest C. Harris, Chairman of the Department of Civil Engineering, Fenn College, have provided material for a coordinated first course in design at the junior-senior level, following the mechanics and strength of materials courses. The book has been revised extensively to incorporate new materials and new illustrative examples that reflect the latest specifications and design methods. The treatment places emphasis on basic training in the application of the statics of simple structures, and the strength of materials, to details of design.

**EARTH PRESSURES AND RETAINING WALLS. By Whitney Clark Huntington. John Wiley & Sons, Inc. Publishers. 440 Fourth Ave., New York City 16, N. Y. Price $11.50.**

Here is a book that bridges the gap between retaining wall design and that part of soil mechanics which deals with earth pressures and foundations; using only principles and procedures with which the structural engineer is familiar, it covers all the common cases and most of the special conditions encountered in the design of retaining walls. The author emphasizes principles and offers numerical solutions; gives typical designs and tabulated computations, explaining the approximations and discusses possible limitations. A noteworthy feature is the author's treatment of the "trial wedge" method in computing earth pressures. Abundantly illustrated.

**MECHANICAL VIBRATIONS. By Bernard Morrill. The Ronald Press Co., 15 E. 26th St., New York 10. 265 pages, 195 ills., tables. Price $6.50.**

This excellently organized book is designed for the first course in fundamental theory of mechanical vibrations. Its purpose is to enable the advanced undergraduate or graduate student to master the mathematical techniques which will equip him to utilize to the utmost the more advanced literature on the subject. The book develops the special mathematics required beyond the student's understanding of basic differential equations, and provides the needed foundation on which the student can advance in the field of mechanical vibrations.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Three commercial standards for steel doors.** Just issued Flush-type Interior Steel Doors and Frames (CS211-57); Steel Sliding Closet Door and Frame Units (CS212-57); and Steel Knockdown Sliding Closet Door Units, for wood frame installation (CS213-57); provide minimum requirements for type of door covered; manufacturers stock items and intended for use where low-cost doors are required; standards cover kind and thickness of material, sizes, general construction


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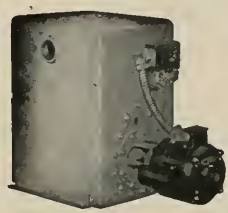
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**Blind bolt and nut data book.** Just published, 12-page book gives advantages of the blind bolt and blind nut, strength, range of materials, sizes, shank expansion, installation, accessibility for structural and repair applications; many illustrations and drawings, charts and other pertinent data. Free copy write DEPT-A&E, Hi-shear Rivet Tool Co., 2600 W. 147th St., Torrance, California.

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**Built-in vacuum cleaning system.** New brochure (AIA No. 35J-1) gives details, illustrations and drawings of installation of built-in vacuum system for home use; makes house cleaning easier and better, several rooms cleaned from one outlet; extra vacuum-suction power with fingertip action. For free copy write DEPT-A&E, Sequoia Vacuum Systems, 1090 Brittan Ave., San Carlos, California.

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**Domestic gas fired incinerators.** Manual of recommended practices for the installation of domestic gas-fired incinerators gives detailed instructions, with diagrams, covering installations; gas piping, flues and vents; also instructions on incinerator operation and maintenance. For copy write DEPT-A&E, Gas Appliance Mfgr's Ass'n, 60 E. 42nd St., New York 17.

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**Stainless steel.** New 32-page catalog, just off the press, a technical digest of the most popular stainless steels; offers description, chemical composition, strength factors, physical properties and typical applications; also includes data on forging ingots and rolled in surface pattern stainless steels. Available free write DEPT-A&E, Sharon Steel Corp'n, Sharon, Pennsylvania.

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**Electric heating users guide.** A 20-page illustrated booklet answers questions confronting prospective electric heating users; How much heat is needed?; Why electric heat?; Which electric heating method? Includes description of various heating systems, central and unit, and gives comparison of installation and maintenance costs; specifications data given. Copy free write DEPT-A&E, Westinghouse Electric Corp'n, P.O. Box 868, Pittsburgh 30, Pa.

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**Light steel structural sections in school construction.** New 22-page booklet illustrates and describes varied uses of light steel structural sections in school constructions; 3 sets of plans, drawn in perspective, show typical classroom arrangements and illustrate methods of framing used for walls and roof; enlarged sections showing joints between load-bearing and non-bearing walls; methods of attaching collateral materials; brief description of 3 schools in which light steel was used to solve individual problems. Free copy write DEPT-A&E, Penn Metal Co., Inc., 40 Central St., Boston 9, Mass.

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# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 4% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

BUILDING BRICK—estimated cost per sq. ft.

| WALL | BRICK | AVERAGE |
|---|---|---|
| 8" | Jumbo | $2.30 |
| 8" | Norman | 2.40 |
| 10" | Standard | 2.40 |
| 12" | Jumbo | 2.55 |
| 14" | Standard | 2.60 |

FACE BRICK—estimated cost per sq. ft.

| WALL | BRICK | AVERAGE |
|---|---|---|
| 8" | Jumbo | $2.55 |
| 8" | Brick Block | 2.30 |
| 10" | Standard | 2.90 |
| 10" | Norman | 2.80 |
| 14" | Norman | 3.05 |

Common Brick—Per 1 M laid—$175.00 up (according to class of work).
Face Brick—Per 1 M laid—$265.00 and up (according to class of work).
Brick Steps—$2.75 per lin. ft. & up.

### BRICK VENEER

BUILDING BRICK—estimated cost per sq. ft.

| WALL | BRICK | AVERAGE |
|---|---|---|
| 3" | Jumbo | $1.15 |
| 3" | Norman | 1.25 |
| 4" | Standard | 1.40 |

FACE BRICK—estimated cost per sq. ft.

| WALL | BRICK | AVERAGE |
|---|---|---|
| 3" | Jumbo | $1.35 |
| 4" | Standard | 1.60 |
| 4" | Norman | 1.50 |
| 4" | Roman | 1.80 |

Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
"Brickette" (Brick Veneer) per M, f.o.b. Niles, $50.00.

**Glazed Structural Units—Walls Erected—**
Clear Glazed—
2 x 6 12 Furring ..... $1.95 per sq. ft.
4 x 6 x 12 Partition ..... 2.25 per sq. ft.
4 x 6 x 12 Double Faced Partition ..... 2.50 per sq. ft.
For colored glaze add ..... .30 per sq. ft.
Mentel Fire Brick $150.00 per M—F.O.B. Pittsburgh.
Fire Brick—2½"x9x4½"—$110.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

**Building Tile—**
8x5½x12-inches, per M ..... $159.40
6x5½x12-inches, per M ..... 124.00
4x5½x12-inches, per M ..... 96.90
**Hollow Tile—**
12x12x3-inches, per M ..... 156.85
12x12x4-inches, per M ..... 177.10
12x12x6-inches, per M ..... 235.30
F.O.B. Plant

### BUILDING PAPER & FELTS—

1 ply per 1000 ft. roll ..... $5.30
2 ply per 1000 ft. roll ..... 7.80
3 ply per 1000 ft. roll ..... 9.70
Brownskin, Standard 500 ft. roll ..... 6.85
Siselkraft, reinforced, 500 ft. roll ..... 8.50
**Sheathing Papers—**
Asphalt sheathing, 15-lb. roll ..... $2.70
30-lb. roll ..... 3.70
Dampcourse, 216-ft. roll ..... 2.95
Blue Plesterboard, 60-lb. roll ..... 5.10
**Felt Papers—**
Deadening felt, ¾-lb., 50-ft. roll ..... $4.30
Deadening felt, 1-lb. ..... 5.05
Asphalt roofing, 15-lbs. ..... 2.70
Asphalt roofing, 30-lbs. ..... 3.70
**Roofing Papers—**
Standard Grade, 108-ft. roll, Light ..... $2.50
Smooth Surface, Medium ..... 2.90
Heavy ..... 3.40
M. S. Extra Heavy ..... 3.95

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 4.00 |
| **Sand—** | | |
| Lapis (Nos. 2 &4) | 3.95 | 4.70 |
| Olympia (Nos. 1 & 2) | 3.50 | 4.00 |

**Cement—**
Common (all brands, paper sacks), Per Sack, small quantity (paper) ..... $1.30
Carload lots, in bulk, per bbl ..... 4.14
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L. ..... 2%
Trinity White, Meduse White ..... } 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in 5-yd. loads: 6 sk. in bulk ..... $14.80
Curing Compound, clear, drums, per gal. ..... .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | .... | .67 |
| **Aggregates—Haydite or Basalite** | **Plant** | |
| ¾-inch to ⅜-inch, per cu. yd | $5.85 | $7.75 |
| ⅜-inch to ¼-inch, per cu. yd | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $13.00 per square and up.
Hot coating work, $5.50 per square & up.
Meduse Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.
Anhi Hydro, 50 gal., $2.20.

**ELECTRIC WIRING**—$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $35 to $55 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.50 per sq. ft.
Terazzo Steps—$3.75 per lin. ft.
**Mastic Wear Coat**—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**
**Oak Flooring—T & G—Unfin.—**

| | ⅜x2¼ | ½x2 | ⅜x2 | ¾x2 |
|---|---|---|---|---|
| | $ | $ | $ | $ |
| Clear Qtd., White | 425 | 405 | | |
| Clear Qtd., Red | | 380 | | |
| Select Qtd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ⅜ x 2¼ | 390.00 | 381.00 |
| ⅜ x 2¾ | 375.00 | 355.00 |
| ⅜ x 3¼ | 395.00 | 375.00 |
| ⅜ x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| ⅜ x 2¼ First Grade | $390.00 |
| ⅜ x 2¼ 2nd Grade | 365.00 |
| ⅜ x 2¼ 2nd & Btr. Grade | 375.00 |
| ⅜ x 2¼ 3rd Grade | 240.00 |
| ⅜ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ⅜ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft. |
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .60 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.80 per □ ft. |
| .75 to 100 | 2.10 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.70 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft. |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| ⅛ in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| ⅛ in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| ⅛ in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| ⅛ in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

**Furnaces—Gas Fired**

| | |
|---|---|
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Duel Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |

**Water Heaters—5-year guarantee**
With Thermostat Control,

| | |
|---|---|
| 20 gal. capacity | 96.00 |
| 30 gal capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
Full thick 3" ..... $66.00
(2") Less than 1,000 □ ft. ..... 64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd |
|---|---|
| V.G.-D.F. 8 & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" end better—all | 215.00 |
| "D" end better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-5IS ..... $120.00
½-inch, 4.0x8.0-5IS ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plysform ..... 160.00

Shingles (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $9.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $45 per M to above
Creosoted, 8-lb. treatment ..... Add $52 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .90 |
| Three-coat work | per yard | 1.35 |
| Cold water painting | per yard | .45 |
| Whitewashing | per yard | .25 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Wholesale Raw | Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

$00 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $.... | $.... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

6-inch ..... $2.75 lineal foot
8-inch ..... 3.25 lineal foot
10-inch ..... 4.10 lineal foot
12-inch ..... 5.20 lineal foot
Installation ..... 75c to $1.50 lineal foot

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .28
Standard, 6-in. ..... .51
Standard, 8-in. ..... .74
Standard, 12-in. ..... 1.61
Standard, 24-in. ..... 6.42
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless,
(unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. .. 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.45 to $1.70 per square foot.
Cove Base—$1.20 per lineal foot.
Quarry Tile Floors—6x6 with 6" base @ $1.35 per sq. ft.
Tile Wainscots and Floors—Residential, 4¼x4¼ @ $1.75 to $2.00.
Tile Wainscots—Commercial Jobs 4¼x4¼ Tile $1.60 to $1.85 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜" ..... $ .25 - $ .35 sq. ft.
Light shades slightly higher.
Cork Tile—$.60-$.70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each | $ .17 |

**Kraftile:** Per square foot
Patio Tile—Niles Red
12 x 12 x ⅞-inch, plain ..... $ .40
6 x 12 x ⅞-inch, plain ..... .43
6 x 6 x ⅞-inch, plain ..... .46

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
L. D. REEDER CO.
San Francisco: 1255 Sansome St., DO 2-5050
Sacramento: 3026 V St., GL 7-3505

**AIR CONDITIONING**
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
GILMORE AIR CONDITIONING SERVICE
San Francisco: 1617 Harrison St., UN 1-2000
KAEMPER & BARRETT
San Francisco: 233 Industrial St., JU 6-6200
LINFORD AIR & REFRIGERATION CO.
Oakland: 174-12th St., TW 3-6521
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAMES A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140

**ALUMINUM BLDG. PRODUCTS**
MICHEL & PFEFFER IRON WORKS (Wrought Iron)
So. San Francisco: 212 Shaw Road, PLaza 5-8983
REYNOLDS METALS CO.
San Francisco: 3201 Third St., MI 7-2990
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141
UNIVERSAL WINDOW CO.
Berkeley: 950 Parker St., TH 1-1600

**ARCHITECTURAL PORCELAIN ENAMEL**
CALIFORNIA METAL ENAMELING CO.
Los Angeles: 6904 E. Slauson, RA 3-6351
San Francisco: Continental Bldg. Products Co., 178 Fremont St.
Portland: Portland Wire & Iron Works, 4644 S.E. Seventeenth Ave.
Seattle: Foster-Bray Co., 2412 1st Ave. So.
Spokane: Bernhard Schafer, Inc., West 34, 2nd Ave.
Salt Lake City: S. A. Roberts & Co., 109 W. 2nd So.
Dallas: Offenhauser Co., 2201 Telephone Rd.
El Paso: Architectural Products Co., 506 E. Yandell Blvd.
Phoenix: Haskell-Thomas Co., 3808 No. Central
San Diego: Maloney Specialties, Inc., 823 W. Laurel St.
Boise: Intermountain Glass Co., 1417 Main St.

**ARCHITECTURAL & AERIAL PHOTOGRAPHS**
FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**ARCHITECTURAL VENEER**
Ceramic Veneer
GLADDING, McBEAN & CO.
San Francisco: Harrisan at 9th St., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle 99: 945 Elliott Ave., West, GA 0330
Spokane: 1102 N. Monroe St., BR 3259
KRAFTILE COMPANY
Niles, Calif., Niles 3611

Porcelain Veneer
PORCELAIN ENAMEL PUBLICITY BUREAU
Oakland 12: Room 601, Franklin Building
Pasadena 8: P. O. Box 186, East Pasadena Station

Granite Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

Marble Veneer
VERMONT MARBLE COMPANY
San Francisco 24: 6000 3rd St., VA 6-5024
Los Angeles: 3522 Council St., DU 2-6339

**BANKS - FINANCING**
CROCKER-ANGLO NATIONAL BANK
San Francisco: 13 Offices

**BLINDS**
PARAMOUNT VENETIAN BLIND CO.
San Francisco: 5929 Mission St., JU 5-2436

**BRASS PRODUCTS**
GREENBERG'S, M. SONS
San Francisco 7: 765 Folsom, EX 2-3143
Los Angeles 23: 1258 S. Bayle, AN 3-7108
Seattle 4: 1016 First Ave. So., MA 5140
Phoenix: 3009 N. 19th Ave., Apt. 92, PH 2-7663
Portland 4: 510 Builders Exch. Bldg., AT 6443

**BRICKWORK**
Face Brick
GLADDING McBEAN & CO.
San Francisco: Harrison at 9th, UN 1-7400
KRAFTILE CO.
Niles, Calif., Niles 3611
UNITED MATERIALS & RICHMOND BRICK CO.
Point Richmond, BE 4-5032

**BRONZE PRODUCTS**
GREENBERG'S M. SONS
San Francisco: 765 Folsom St., EX 2-3143
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Road, PLaza 5-8983
C. E. TOLAND & SON
Oakland: 2635 Peralta St., GL 1-2580

**BUILDING HARDWARE**
E. M. HUNDLEY HARDWARE CO.
San Francisco: 662 Mission St., YU 2-3322

**BUILDING PAPERS & FELTS**
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CABINETS & FIXTURES**
CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., VA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PARAMOUNT BUILT IN FIXTURE CO.
Oakland: 962 Stanford Ave., OL 3-9911
ROYAL SHOWCASE CO.
San Francisco: 770 McAllister St., JO 7-0311

**CEMENT**
CALAVERAS CEMENT CO.
San Francisco: 315 Montgomery St.
DO 2-4224, Enterprise 1-2315
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616

**CONCRETE AGGREGATES**
Ready Mixed Concrete
CENTRAL CONCRETE SUPPLY CO.
San Jose: 610 McKendrie St.
PACIFIC CEMENT & AGGREGATES INC.
San Francisco: 400 Alabama St., KL 2-1616
Sacramento: 16th and A Sts., GI 3-6586
San Jose: 790 Stockton Ave., CY 2-5620
Oakland: 2400 Peralta St., GL 1-0177
Stockton: 820 So. California St., ST 8-8643
READYMIX CONCRETE CO.
Santa Rosa: 50 W. Cottage Ave.
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
SANTA ROSA BLDG. MATERIALS CO.
Santa Rosa: Roberts Ave.

**CONCRETE ACCESSORIES**
Screed Materials
C. & H. SPECIALTIES CO.
Berkeley: 909 Camelia St., LA 4-5358

**CONCRETE BLOCKS**
BASALT ROCK CO.
Napa, Calif.

**CONCRETE COLORS—HARDENERS**
CONRAD SOVIG CO.
875 Bryant St., HE 1-1345

**CONSTRUCTION SERVICES**
LE ROY CONSTRUCTION SERVICES
San Francisco, 143 Third St., SU 1-8914

**DECKS—ROOF**
UNITED STATES GYPSUM CO.
2322 W. 3rd St., Los Angeles 54, Calif.
300 W. Adams St., Chicago 6, Ill.

**DOORS**
THE BILCO COMPANY
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

Cold Storage Doors
BIRKENWALD
Portland: 310 N.W. 5th Ave.

Electric Doors
ROLY-DOOR SALES CO.
San Francisco, 5976 Mission St., PL 5-5089

Folding Doors
WALTER D. BATES & ASSOCIATES
San Francisco, 693 Mission St., GA 1-6971

Hardwood Doors
BELLWOOD CO. OF CALIF.
Orange, Calif., 533 W. Collins Ave.

Hollywood Doors
WEST COAST SCREEN CO.
Los Angeles: 1127 E. 63rd St., AD 1-1108
T. M. COBB CO.
Los Angeles & San Diego
W. P. FULLER CO.
Seattle, Tacoma, Portland
HOGAN LUMBER CO.
Oakland: 700 - 6th Ave.
HOUSTON SASH & DOOR
Houston, Texas
SOUTHWESTERN SASH & DOOR
Phoenix, Tucson, Arizona
El Paso, Texas
WESTERN PINE SUPPLY CO.
Emeryville: 5760 Shellmound St.
GEO. C. VAUGHAN & SONS
San Antonio & Houston, Texas

Screen Doors
WEST COAST SCREEN DOOR CO.

**DRAFTING ROOM EQUIPMENT**
GENERAL FIREPROOFING CO.
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070

**DRINKING FOUNTAINS**
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341

**ELECTRICAL CONTRACTORS**
COOPMAN ELECTRIC CO.
San Francisco: 85 - 14th St., MA 1-4438
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432

**ELECTRICAL CONTRACTORS (cont'd)**

LEMOGE ELECTRIC CO.
San Francisco: 212 Clara St., DO 2-6010
LYNCH ELECTRIC CO.
San Francisco: 937 McAllister St., WI 5158
PACIFIC ELECTRIC & MECHANICAL CO.
San Francisco: Gough & Fell Sts., HE 1-5904

**ELECTRIC HEATERS**

WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211

**FIRE ESCAPES**

MICHEL & PFEFFER IRON WORKS
South San Francisco: 212 Shaw Road, PLaza 5-8983

**FIRE PROTECTION EQUIPMENT**

FIRE PROTECTION PRODUCTS CO.
San Francisco: 1101-16th St., UN 1-2420
ETS-HOKIN & GALVAN
San Francisco: 551 Mission St., EX 2-0432
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**FLOORS**

**Floor Tile**

GLADDING McBEAN & CO.
San Francisco: Harrison at 9th St.. UN 1-744
Los Angeles: 2901 Las Feliz Bldg., OL 2121
KRAFTILE CO.
Niles, Calif., Niles 3611

**Resilient Floors**

PETERSON-COBBY CO.
San Francisco: 218 Clara St., EX 2-8714
TURNER RESILIENT FLOORS CO.
San Francisco: 2280 Shafter Ave., AT 2-7720

**FLOOR DRAINS**

JOSAM PACIFIC COMPANY
San Francisco: 765 Folsom St., EX 2-3142

**GAS VENTS**

WM. WALLACE CO.
Belmont, Calif.

**GENERAL CONTRACTORS**

O. E. ANDERSON
San Jose: 1075 No. 10th St., CY 3-8844
BARRETT CONSTRUCTION CO.
San Francisco: 1800 Evans Ave., MI 7-9700
JOSEPH BETTANCOURT
South San Francisco: 125 So. Linden St., PL 5-9185
DINWIDDIE CONSTRUCTION CO.
San Francisco: Crocker Bldg., YU 6-2718
D. L. FAULL CONSTRUCTION CO.
Santa Rosa: 1236 Cleveland Ave.
HAAS & HAYNIE
San Francisco: 275 Pine St., DO 2-0678
HENDERSON CONSTRUCTION CO.
San Francisco: 33 Ritch St., GA 1-0856
IACKS & IRVINE
San Francisco: 620 Market St., YU 6-0511
G. P. W. JENSEN & SONS
San Francisco: 320 Market St., GA 1-2444
RALPH LARSEN & SON
San Francisco: 64 So. Park, YU 2-5682
LINDGREN & SWINERTON
San Francisco: 200 Bush St., GA 1-2980
MacDONALD, YOUNG & NELSON
San Francisco: 351 California St., YU 2-4700
MATTOCK CONSTRUCTION CO.
San Francisco: 220 Clara St., GA 1-5516
OLSEN CONSTRUCTION CO.
Santa Rosa: 125 Brookwood Ave., SR 2030
BEN ORTSKY
Cotati: Cypress Ave., Pet. 5-4383
PARKER, STEFFANS & PEARCE
San Mateo: 135 So. Park, EX 2-6639
RAPP, CHRISTENSEN & FOSTER
Santa Rosa: 705 Bennett Ave.
STOLTE, INC.
Oakland: 8451 San Leandro Ave., LO 2-4611
SWINERTON & WALBERG
San Francisco: 200 Bush St., GA 1-2980

**FURNITURE—INSTITUTIONAL**

GENERAL FIREPROOFING CO.
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280
Los Angeles: 1200 South Hope St., RI 7-7501

**HEATING & VENTILATING**

ATLAS HEATING & VENT. CO.
San Francisco: 557-4th St., DO 2-0377
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., OL 2-6000
LOUIS Y. KELLER
San Francisco: 289 Tehama St., JU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
MALM METAL PRODUCTS
Santa Rosa: 724-2nd St., SR 454
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
SCOTT COMPANY
Oakland: 1919 Market St., GL 1-1937
WESIX ELECTRIC HEATER CO.
San Francisco: 390 First St., GA 1-2211
Los Angeles: 530 W. 7th St., MI 8096

**INSULATION WALL BOARD**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**INTERCEPTING DEVICES**

JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3142

**IRON—ORNAMENTAL**

MICHEL & PFEFFER IRON WKS.
So. San Francisco, 212 Shaw Rd., PL 5-8983

**LATHING & PLASTERING**

ANGELO J. DANERI
San Francisco: 1433 Fairfax Ave., AT 8-1582
K-LATH CORP.
Alhambra: 909 So. Fremont St., Alhambra
A. E. KNOWLES CORP.
San Francisco: 3330 San Bruno Ave., JU 7-2091
G. H. & C. MARTINELLI
San Francisco: 174 Shotwell St., UN 3-6112
FREDERICK MEISWINKEL
San Francisco: 2155 Turk St., JO 7-7587
RHODES-JAMIESON LTD.
Oakland: 333-23rd Ave., KE 3-5225
PATRICK J. RUANE
San Francisco: 44 San Jose Ave., MI 7-6414

**LIGHTING FIXTURES**

SMOOT-HOLMAN COMPANY
Inglewood, Calif., OR 8-1217
San Francisco: 55 Mississippi St., MA 1-8474

**LUMBER**

CHRISTENSEN LUMBER CO.
San Francisco: Quint & Evans Ave., VA 4-5832
ART HOGAN LUMBER CO.
1701 Galvez Ave., ATwater 2-1157
MEAD CLARK LUMBER CO.
Santa Rosa: 3rd & Railroad
ROLANDO LUMBER CO.
San Francisco: 5th & Berry Sts., SU 1-6901
STERLING LUMBER CO.
Santa Rosa: 1129 College Ave., S. R. 82

**MARBLE**

JOS. MUSTO SONS-KEENAN CO.
San Francisco: 555 No. Point St., GR 4-6365
YERMONT MARBLE CO.
San Francisco: 6000-3rd St., VA 6-5024

**MASONRY**

BASALT ROCK CO.
Napa, Calif.
San Francisco: 260 Kearney St., GA 1-3758
WM. A. RAINEY & SON
San Francisco: 323 Clementina St., SU 1-0072
GEO. W. REED CO.
San Francisco: 1390 So. Van Ness Ave., AT 2-1226

**METAL EXTERIOR WALLS**

THE KAWNEER CO.
Berkeley: 930 Dwight Way, TH 5-8710

**METAL FRAMING**

UNISTRUT OF NORTHERN CALIFORNIA
Berkeley: 2547-9th St., TH 1-3031
Enterprise 1-2204

**METAL GRATING**

KLEMP METAL GRATING CORP.
Chicago, Ill.: 6601 So. Melvina St.

**METAL LATH—EXPANDED**

PACIFIC CEMENT & AGGREGATES, INC.
San Francisco: 400 Alabama St., KL 2-1616

**METAL PARTITIONS**

THE E. F. HAUSERMAN CO.
San Francisco: 485 Brannan St., YU 2-5477

**METAL PRODUCTS**

FORDERER CORNICE WORKS
San Francisco: 269 Potrero Ave., HE 1-4100

**MILLWORK**

CENTRAL MILL & CABINET CO.
San Francisco: 1595 Fairfax Ave., YA 4-7316
THE FINK & SCHINDLER CO.
San Francisco: 552 Brannan St., EX 2-1513
MULLEN MFG. CO.
San Francisco: 64 Rausch St., UN 1-5815
PACIFIC MFG. CO.
San Francisco: 16 Beale St., GA 1-7755
Santa Clara: 2610 The Alameda, S. C. 607
Los Angeles: 6820 McKinley Ave., TH 4156
SOUTH CITY LUMBER & SUPPLY CO.
So. San Francisco: Railroad & Spruce, PL 5-7085

**OFFICE EQUIPMENT**

GENERAL FIREPROOFING CO.
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280

**OIL BURNERS**

S. T. JOHNSON CO.
Oakland: 940 Arlington Ave., GL 2-6000
San Francisco: 585 Potrero Ave., MA 1-2757
Philadelphia, Pa.: 401 North Broad St.

**ORNAMENTAL IRON**

MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**PAINTING**

R. P. PAOLI & CO.
San Francisco: 2530 Lombard St., WE 1-1632
SINCLAIR PAINT CO.
San Francisco: 2112-15th St., HE 1-2196
D. ZELINSKY & SONS
San Francisco: 165 Groove St., MA 1-7400

**PHOTOGRAPHS**

**Construction Progress**

FRED ENGLISH
Belmont, Calif.: 1310 Old County Road, LY 1-0385

**PLASTER**

PACIFIC CEMENT & AGGREGATE INC.
San Francisco: 400 Alabama St., KL 2-1616

**PLASTIC PRODUCTS**

PLASTIC SALES & SERVICE
San Francisco: 409 Bryant St., DO 2-6433
WEST COAST INDUSTRIES
San Francisco: 3150-18th St., MA 1-5657

**PLUMBING**
BROADWAY PLUMBING CO.
San Francisco: 1790 Yosemite Ave., MI 8-4250
E. C. BRAUN CO.
Berkeley: 2115 Fourth St., TH 5-2356
C. W. HALL
Santa Rosa: 1665 Sebastopol Rd., SR 6354
HAWS DRINKING FAUCET CO.
Berkeley: 1435 Fourth St., LA 5-3341
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143
LOUIS Y. KELLER
San Francisco: 289 Tehama St., YU 6-6252
L. J. KRUSE CO.
Oakland: 6247 College Ave., OL 2-8332
JAS. A. NELSON CO.
San Francisco: 1375 Howard St., HE 1-0140
RODONI-BECKER CO., INC.
San Francisco: 455-10th St., MA 1-3662
SCOTT CO.
Oakland: 1919 Market St., GL 1-1937

**PLUMBING FIXTURES**
BRIGGS MANUFACTURING COMPANY
Warren, Michigan

**POST PULLER**
HOLLAND MFG. CO.
No. Sacramento: 1202 Dixieanne

**PUMPING MACHINERY**
SIMONDS MACHINERY CO.
San Francisco: 816 Folsom St., DO 2-6794

**ROOFING**
ANCHOR ROOFING CO.
San Francisco: 1671 Galvez Ave., VA 4-8140
ALTA ROOFING CO.
San Francisco: 1400 Egbert Ave., MI 7-2173
REGAL ROOFING CO.
San Francisco: 930 Innes Ave., VA 4-3261

**ROOF SCUTTLES**
THE BILCO CO.
New Haven, Conn.
Oakland: Geo. B. Schultz, 190 MacArthur Blvd.
Sacramento: Harry B. Ogle & Assoc., 1331 T St.
Fresno: Healey & Popovich, 1703 Fulton St.
Reseda: Daniel Dunner, 6200 Alonzo Ave.

**ROOF TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**SAFES**
THE HERMANN SAFE CO.
San Francisco: 1699 Market St., UN 1-6644

**SEWER PIPE**
GLADDING, McBEAN & CO.
San Francisco: 9th & Harrison, UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121

**SHEET METAL**
MICHEL & PFEFFER IRON WORKS
So. San Francisco: 212 Shaw Rd., PL 5-8983

**SOUND EQUIPMENT**
STROMBERG-CARLSON CO.
San Francisco: 1805 Rollins Rd., Burlingame, OX 7-3630
Los Angeles: 5414 York Blvd., CL 7-3939

**SPRINKLERS**
BARNARD ENGINEERING CO.
San Francisco: 35 Elmira St., JU 5-4642

**STEEL—STRUCTURAL & REINFORCING**
COLUMBIA-GENEVA DIV., U. S. STEEL CORP.
San Francisco: Russ Bldg., SU 1-2500
Los Angeles: 2087 E. Slauson, LA 1171
Portland, Ore.: 2345 N.W. Nicolai, BE 7261
Seattle, Wn.: 1331-3rd Ave. Bldg., MA 1972
Salt Lake City, Utah: Walker Bank Bldg., SL 3-6733
HERRICK IRON WORKS
Oakland 18th & Campbell, GL 1-1767
INDEPENDENT IRON WORKS, INC.
Oakland: 780 Pine St., TE 2-0160
JUDSON PACIFIC MURPHY CORP.
Emeryville: 4300 Eastshore Highway, OL 3-1717
REPUBLIC STEEL CORP.
San Francisco: 116 New Montgomery St., GA 1-0977
Los Angeles: Edison Bldg.
Seattle: White-Henry Stuart Bldg.
Salt Lake City: Walker Bank Bldg.
Denver: Continental Oil Bldg.
SOULE STEEL CO.
San Francisco: 1750 Army St., VA 4-4141

**STEEL FORMS**
STEELFORM CONTRACTING CO.
San Francisco: 666 Harrison St., DO 2-5582

**SWIMMING POOLS**
SIERRA MFG. CO.
Walnut Creek, Calif.: 1719 Mt. Diablo Blvd.

**SWIMMING POOL FITTINGS**
JOSAM PACIFIC CO.
San Francisco: 765 Folsom St., EX 2-3143

**TESTING LABORATORIES**
**(ENGINEERS & CHEMISTS)**
ABBOT A. HANKS, INC.
San Francisco: 624 Sacramento St., GA 1-1697
ROBERT W. HUNT COMPANY
San Francisco: 500 Iowa, MI 7-0224
Los Angeles: 3050 E. Slauson, JE 9131
Chicago, New York, Pittsburgh
PITTSBURGH TESTING LABORATORY
San Francisco: 651 Howard St., EX 2-1747

**TILE—CLAY & WALL**
GLADDING McBEAN & CO.
San Francisco: 9th & Harrison Sts., UN 1-7400
Los Angeles: 2901 Los Feliz Blvd., OL 2121
Portland: 110 S.E. Main St., EA 6179
Seattle: 945 Elliott Ave. West, GA 0330
Spokane: 1102 No. Monroe St., BR 3259
KRAFTILE CO.
Niles, Calif.: Niles 3611
San Francisco: 50 Hawthorne St., DO 2-3780
Los Angeles: 406 So. Main St., MA 7241

**TILE—TERRAZZO**
NATIONAL TILE & TERAZZO CO.
San Francisco: 198 Mississippi St., UN 1-0273

**TIMBER—TREATED**
J. H. BAXTER CO.
San Francisco: 200 Bush St., YU 2-0200
Los Angeles: 3450 Wilshire Blvd., DU 8-9591

**TIMBER TRUSSES**
EASYBOW ENGINEERING & RESEARCH CO.
Oakland: 13th & Wood Sts., GL 2-0805

**TRUCKING**
PASSETTI TRUCKING CO.
San Francisco: 264 Clementina St., GA 1-5297

**UNDERPINNING & SHORING**
D. J. & T. SULLIVAN
San Francisco: 1942 Folsom St., MA 1-1545

**WALL PAPER**
WALLPAPERS, INC.
Oakland: 384 Grand Ave., GL 2-0451

**WAREHOUSE AND STORAGE EQUIPMENT AND SHELVING**
GENERAL FIREPROOFING CO.
Los Angeles: 1200 South Hope St., RI 7-7501
San Francisco: 1025 Howard St., HE 1-7070
Oakland: 332-19th St., GL 2-4280

**WATERPROOFING MATERIALS**
CONRAD SOVIG CO.
San Francisco: 875 Bryant St., HE 1-1345

**WATERSTOPS (P.V.C.)**
TECON PRODUCTS, LTD.
Vancouver, B.C.: 681 E. Hastings St.
Seattle: 304 So. Alaskan Way

**WINDOW SHADES**
SHADES, INC.
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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2 995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

***ATTENTION:*** The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**MEDICAL CENTER,** Cedar Village, Fresno. Geo. & Aran Apregan, Fresno, owner. Wood frame and masonry construction, brick veneer, flat composition roof, cement slab floors, acoustical tile, 7900 sq. ft. in area—$139,980. ARCHITECT: Robert W. Stevens, 944 No. Van Ness, Fresno. GENERAL CONTRACTOR: R. G. Fisher, P.O. Box 4081, Fresno.

**FIRE HOUSE,** Belmont, San Mateo county. Belmont Fire Protection District, owner. Wood frame and stucco, brick and rustic, built-up roofing—$35,777. ARCHITECT: James McGinnis, Burlingame. GENERAL CONTRACTOR: Robert J. Vassar, 1345 Arroyo Drive, San Carlos.

**CHURCH SCHOOL BLDG.,** Berkeley, Alameda county. First Presbyterian Church of Berkeley, owner. Type I construction, reinforced concrete; 40,000 sq. ft. of area—$634,526. ARCHITECT: Donald Powers Smith, 133 Kearny St, San Francisco. GENERAL CONTRACTOR: Ralph Larsen & Son, 64 South Park St, San Francisco.

**OFFICE BLDG.,** Brawley, Imperial county. Brandt Bros, Brawley, owner. Work comprises two offices, restrooms, snack room, reception and large clerical area; 56x30 ft., concrete slab floor, stucco and stone, composition and gravel roof, plaster interior, air conditioning, heating, ceramic tile, blacktop paving for parking. ARCHITECT: MacBird & Couverely, Wm. L. Couverely, architect, 2218 N. Main St, Santa Ana. GENERAL CONTRACTOR: Bermuda Const. Co., 830 E. Washington Ave., Santa Ana.

**NEW HIGH SCHOOL,** Santa Rosa, Sonoma county. Santa Rosa City School District, owner. New 1-story wood frame, concrete floor with vinyl tile, composition roof, concrete walls; provides administration, classroom wing, music building, gymnasium, cafeteria, shops, toilet facilities, all connected with covered corridors—$1,763,979. ARCHITECT: J. Clarence Felciano, 4010 Montecito Ave., Santa Rosa. GENERAL CONTRACTOR: Ben Oretsky & Paul V. Wright (Joint Venture) 1290 Parsons Drive, Santa Rosa.

**WAREHOUSE BLDG,** Van Nuys, Los Angeles county. Frontier Building Supply Co, North Hollywood, owner. Brick warehouse building, composition roofing, concrete slab floor and structural steel work; 40x100 ft. of area—$14,000. STRUCTURAL ENGINEER: Laurence J. Walker, 601½ S. New Hampshire Ave, Los Angeles. GENERAL CONTRACTOR: L. D. Richardson, 9927 Santa Monica Blvd, Beverly Hills.

**SWIMMING POOLS,** Sacramento. City of Sacramento, owner. Two new swimming pools to be built in Sacramento's City Parks — $169,934. ARCHITECT: Harry J. Devine, 1012 J St, Sacramento. GENERAL CONTRACTOR: Dennis Pools Inc, 2385 Fair Oaks Blvd, Sacramento.

**RESTAURANT ADD'N,** Woodland Hills, Los Angeles county. Helene's Steak House, Woodland Hills. Frame and stucco banquet room addition, 49x56 ft. of area, composition roof, masonry veneer, concrete slab, acoustical ceiling, metal sash, toilet facilities, offices—$17,000. ENGINEER: Herman Goodman, 14420 Erwin St, Van Nuys. GENERAL CONTRACTOR: John T. Peterson, 21300 Ventura Blvd, Woodland Hills.

**SHOPPING CENTER,** Atwater, Merced county. Friedland Bros, Oakland, owner. 1-Story list slab construction, steel beams, built-up composition roof, asphalt tile floors, paved parking area; 22,000 sq. ft. area—$193,000. ARCHITECT: Howard Schroder, Fresno. GENERAL CONTRACTOR: Robert G. Fisher, P.O. Box 4081, Fresno.

**GENERAL MOTORS TRAINING CENTER ADD'N,** Burbank, Los Angeles county. Argonaut Realty Division, General Motors Corpn, Detroit, Michigan, owner. Steel and masonry addition of 59x117 ft., stone coping, accordion partitions, ornamental metal, aluminum sash, industrial steel doors, fire springlers, metal office partions, air conditioning, ceramic tile, acoustical work, hollow metal doors.

ARCHITECT: Heitschmidt & Thompson, 2010 Wilshire Blvd, Los Angeles. GENERAL CONTRACTOR: Lindgren & Swinerton, 1631 Beverly Blvd, Los Angeles.

**MUSIC BLDG ADDITION,** High School, Livermore, Alameda county. Livermore Joint Union High School District, owner. Alterations to present building facilities—$45,763. ARCHITECT: Anderson & Simonds, 2800 Park Blvd,Oakland. GENERAL CONTRACTOR: McClellan Const Co, 1735 D. St., Hayward.

**FILM LABORATORY ADD'N,** Los Angeles. Consolidated Film Industries, Hollywood, owner. Reinforced concrete addition to present film laboratory, 20x142 ft., 2-story, interior plaster, acoustical ceilings, composition roof, concrete roof slab, aluminum sliding sash, hollow metal doors, steel stairs, air conditioning. ARCHITECT: Mathew Lapota, 470 S. San Vicente Blvd, Los Angeles. GENERAL CONTRACTOR: C. W. Driver Inc, 2618 Temple St, Los Angeles.

**HEALTH CENTER:** Visalia, Tulare county. Tulare County Public Health Center, owner. 1-Story concrete masonry walls, wood frame and plaster interior, wood frame partitions, composition roof, slab and asphalt tile floors, terrazzo floors, air conditioning — $225,225. ARCHITECT: Nielsen & Moffatt, 4072 Crenshaw Blvd, Los Angeles. GENERAL CONTRACTOR: Harris Const Co, P.O. Box 109, Fresno.

**CHURCH BLDG,** Chatsworth, Los Angeles county. Los Angeles Baptist City Mission Society, owner. Frame and stucco church building, 2400 sq.ft. area, composition roof, stucco interior, metal sash, wood folding doors, laminated wood arches, choir loft, electrical work, asphalt concrete paving. ARCHITECT: David Patterson, 672 S. Lafayette Park, Los Angeles. GENERAL CONTRACTOR: Eric Peterson, 17726 Community St, Northridge.

**SWIMMING POOL,** Antioch city school, Contra Costa county. Antioch-Live Oak unified School District, Antioch, owner. Contract for construction of a modern swimming pool — $102,776. ARCHITECT: John Lyon Reid & Partners, 1019 Market St, San Francisco. GENERAL CONTRACTOR: Paddock Pools Inc, 3690 Mt. Diablo Blvd, Lafayette.

**JUSTICE BLDG.,** Independence, Inyo county. County of Inyo, Independence, owner. Work consists of construction of new Justice Building with all allied facilities—$244,500. ARCHITECT: Nielsen & Moffatt, 4072 Crenshaw Bvd., Los Angeles. GENERAL CONTRACTOR: Staiger Const. Co., P.O. Box 488, Fresno.

**COMMERCIAL BLDG.,** Reno, Nevada. Valley Finance Co., Reno, owner. New Commercial building, brick masonry walls, plate glass, acoutic tile, heating, air conditioning, tile flooring, insulation, composition roofing; drive-in service facilities and off-street parking—$78,000. ARCHITECT: Edward S. Parsons, 210 2nd St., Reno. GENERAL CONTRACTOR: Allen Gallaway, Reno.

**ELKO HOTEL,** Elko, Nevada. Daniel Bilboa, Elko, owner. Ultra modern hotel to replace fire loss of old Stockman's Hotel; 88 rooms, baths, basement garage, swimming pool, theater, restaurant, coffee shop, bar, area for small shops—$1,500,000. ARCHITECT: E. F. Reese and William R. Stenson, Elko. GENERAL CONTRACTOR: Stolte Inc., 8451 San Leandro St., Oakland.

**OFFICE BLDG.,** Tulare. Barryhill-Kuney & John Coaltz, Tulare, owner. 1-Story concrete block construction, composition roofing; facilities for 5 units—$49,514. ARCHITECT: James P. Lockett, Bank of America Bldg., Visalia. GENERAL CONTRACTOR: Pittman & Swanson, P.O. Box 1294, Tulare.

**STUDENTS UNION,** Sunnyvale High School, Sunnyvale, Santa Clara county. Fremont Union High School District, Sunnyvale, owner. Steel frame with wood wall construction, exterior finish of stone, concrete floors, steel windows, built-up roofing, asphalt shingle or tar and gravel roof — $95,188. ARCHITECT: Masten, Hurd & Abrams, 526 Powell St., San Francisco. GENERAL CONTRACTOR: Harrod & Williams, 290 S. Murphy St., Sunnyvale.

**ELEMENTARY SCHOOL,** Deer Creek, Shasta county. Shasta Lake Union School District, Redding, owner. 1-Story frame and stucco construction; facilities for 10 classrooms, multi-use room, boiler room—$270,667. ARCHITECT: Clayton Kantz, 2021 Court St., Redding. GENERAL CONTRACTOR: Singleton Const. Co., P.O. Box 271, Eureka.

**JUNIOR HIGH,** Chico, Butte county. Chico High School District, Chico, owner. Wood frame, some pre-cast stone; facilities for 21-classrooms, multi-unit, music, home making, kitchen, shops, boys and girls locker rooms, administration unit, toilets; site work — $714,694. ARCHITECT: Lawrence G. Thompson, 125 W. 3rd St., Chico. GENERAL CONTRACTOR: The Pacific Co., 801 Cedar St., Berkeley.

**SWIMMING POOL,** McClaren Park, San Francisco. City of San Francisco, owner. Contract awarded for construction of a new swimming pool in McClaren

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Park—$352,900. ARCHITECT: Charles W. Griffiths, City Architect, City Hall, San Francisco. GENERAL CONTRACTOR: Engstrom & Nourse, 352 5th St., San Francisco.

**AGRICULTURAL BLDG.**, Crescent City, Del Norte county. County of Del Norte, Crescent City, owner. Construction of a new county Agriculture building —$11,610. GENERAL CONTRACTOR: Osborne & Bowie, Crescent City.

**MEDICAL CENTER**, Long Beach, Los Angeles county. Edward J. Wiater, MD, Long Beach, owner. 1-Story stucco and concrete and stone veneer medical building; facilities for dental office and complete Orthopedics; wood panel with exposed beam ceiling reception room, offices, x-ray rooms, examination rooms, lavatory and several supply rooms; 3400 sq. ft. in area—$35,000. STRUCTURAL ENGINEER: Harold E. Ketchum, 3711 Cedar Ave., Long Beach.

**CHURCH**, Fremont, Alameda county. First Baptist Church, owner. 2-Story, wood frame, composition shingle roof—$49,347. ARCHITECT: Hale & Jacobsohn, 241 Vallejo St., Mission San Jose. GENERAL CONTRACTOR: R. A. Griffin, P. O. Box 504, Irvington.

**DAIRY RESEARCH BLDG.**, UC Campus, Davis, Yolo county. University of California, Davis, owner. Project comprises 2 milking barns, milk house, office, demonstration bldg., feed barns, calf shed, bull and research barns, corrals, fencing and related equipment — $480,843. ARCHITECT: Albert Hunter, Jr., Berkeley. GENERAL CONTRACTOR: Jay Bailey Const. Co., P.O. Box 148, Woodland.

**TELEPHONE BLDG.**, Rolling Hills, Los Angeles county. General Telephone Co., Santa Monica, owner. 2-Story telephone office building, 113x73 ft. in area, excavating, paving, concrete work, structural steel, plastering, sheet metal, composition roofing, metal doors, metal windows, ceramic tile, marble, floor covering, heating, ventilating, electrical — $235,000. ARCHITECT: Daniel, Mann, Johnson & Mendenhall, 3325 Wilshire Blvd. GENERAL CONTRACTOR: MacIsaac & Menke, 3440 E. 14th St., Los Angeles.

**ELEMENTARY SCHOOL**, Caloroga; Mt. Eden, Alameda county. Mt. Eden School District, owner. 1-Story, 13,000 sq. ft. in area; wood frame construction providing facilities for administration, 6 classrooms, kindergarten and allied appurtenances—$191,131. ARCHITECT: Donald F. Haines, 144 W. San Carlos St., San Jose. GENERAL CONTRACTOR: Leon Wheatley Inc., 4133 El Camino Real, Palo Alto.

**HARDWARE STORE AND OFFICE**, Eureka, Humboldt county. The Buhne Co., Eureka, owner. Reinforced concrete tilt-up concrete walls. ARCHITECT: Gerald Matson, 537 G St., Eureka. GENERAL CONTRACTOR: Singleton Co., P.O. Box 271, Eureka.

**CHURCH**, San Bruno, San Mateo county. Roman Catholic Archbishop of San Francisco, owner. 1-Story, wood frame and stucco construction, shingle roof and steeple—$167,940. STRUCTURAL ENGINEER: William B. Gilbert, 202 Green St., San Francisco. MECHANICAL ENGINEER: Aladdin Heating Corpn, 1111 West Ave., San Leandro. ELECTRICAL ENGINEER: Smith & Garthorne, 1122 Market St., San Francisco. GENERAL CONTRACTOR: Jacks & Irvine, 620 Market St., San Francisco.

**WEST SECOND STREET SCHOOL**, Rio Linda, Sacramento county. Rio Linda Union School District, owner. 1-Story, steel frame, brick masonry, panel curtain walls; facilities for 2 classrooms, toilets—$62,090. ARCHITECT: Cox & Liske, 926 J St., Sacramento. ELECTRICAL ENGINEER: Carl R. Koch, 1727 J St., Sacramento. MECHANICAL ENGINEER: Lester A. O'Meara, 1400 10th St., Sacramento. GENERAL CONTRACTOR: Bingham Const. Co., 14415 Hawthorne Blvd., Lawnsdale.

**OFFICE BLDG. AND TRUCK REPAIR SHOP**, Montebello, Los Angeles county. Western Auto Transports, Inc., Los Angeles, owner. 1-Story concrete block office building and repair shop; office will contain 3000 sq. ft. in area and the shop 7500 sq. ft.; composition roofing, concrete floor, metal sash, ceramic tile, acoustical, insulation, painting, plastering, plumbing, heating, ventilating, air conditioning in office. ARCHITECT: Risley & Gould, 2502 W. 3rd St., Los Angeles. GENERAL CONTRACTOR: C. W. Driver Inc., 2618 Temple St., Los Angeles.

**SUNDAY SCHOOL**, Menlo Park, San Mateo county. First Church Christ Scientist, Menlo Park, owner. Two buildings 113x64 ft. concrete block and frame construction, structural steel roof trusses, wood roofing. ARCHITECT: Leslie I. Nichols, 454 Forest Ave., Palo Alto. GENERAL CONTRACTOR: Morris Daley, 1145 California Drive, Burlingame.

**CITY COLLEGE ADD'N**, Santa Monica, Los Angeles county. Santa Monica City College, owner. Two story wing addition to present Science Building and a gymnasium with shower and locker rooms; work will include an addition to the library for eating facilities. ARCHITECT: Smith, Powell & Morgridge, 208 W. 8th St., Los Angeles.

**ELEMENTARY SCHOOL**, Lowell, Fresno. Fresno City Unified School District, owner. Wood frame construction will provide facilities for administration wing, 7 classrooms, covered passageway, toilets—$145,300. ARCHITECT: Elso B. DiLuck, 57 W. Fulton St., Fresno. GENERAL CONTRACTOR: Bob Long Const. Co., P.O. Box 1623, Fresno.

**SAFEWAY STORE**, Van Nuys, Los Angeles county. Safeway Stores, Los Angeles, owner. Work will include excavating, caisson work, asphalt paving, concrete, structural steel, ceramic tile, quarry tile, automatic door openers, store fronts, rolling steel doors, metal clad doors, sheet metal composition roofing, suspended ceilings, plastering, porcelain enamel work, heating, ventilating, cooling, electrical and planting — $248,455. ARCHITECT: Daniel, Mann, Johnson & Mendenhall, 3325 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Ernest W. Hahn, Inc., 219 S. Hawthorne Blvd., Hawthorne.


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# IN THE NEWS

### MICHAEL P. SUPERAK NAMED ENGINEER

Michael P. Superak has been appointed district engineer in Northern California for the Austin Company, according to an announcement by George A. Bryant, president of the engineering and construction firm.

Superak has served as supervisory engineer and project engineer for Austin including the Boeing Aircraft Company's recently completed jet transport manufacturing facilities at Renton, Washington, and United Air Line's maintenance base at the San Francisco International Airport.

He is a member of the ASCE, California Society of Professional Engineers, East Bay Structural Engineers, National Bureau of Engineering Registration, and is registered in Illinois, Ohio, California, Texas, Washington and Utah.

### ARCHITECT SELECTED

Architect Robert P. Danielson, 525 Market Street, San Francisco, has been commissioned by the Hexel Products Inc., Oakland, to draft plans for construction of a modern, 1-story manufacturing plant in Oakland.

The plant will contain 181,500 sq. ft. of area, with employee parking area off-street, trucking operations; 28,900 sq. ft. of the area will be devoted to office space. Estimated cost of the project is $1,000,000.

### PROFESSIONAL BUILDING ADD'N

Architects Stiles and Robert Clements of Los Angeles have completed drawings and work has started on a $250,000 12th floor addition to the Professional Building, home office of the Arizona statewide Valley National Bank in downtown Phoenix, Arizona.

When completed the addition will add another 4,500 sq. ft. of floor space to the skyscraper.

### THOMAS A. BISSELL GETS PROMOTION

Thomas A. Bissell has been appointed Executive Secretary of the Society of Plastic Engineers Inc., according to an announcement by Peter W. Simmons, SPE national president.

Bissell was formerly manager of the Society of Automotive Engineers' Meetings Division with staff responsibility for the development and operation of their eleven national meetings. Prior to that he served as technical editor of the SAE Journal.

### ENGINEERING FIRM EXPANDS SERVICES

Formation of a nuclear engineering and construction division has been announced by Holmes & Narver Inc., of Los Angeles and Washington, according to an announcement by James T. Holmes, president of the firm.

The new service will be offered as a separate divisional activity and represents nearly a decade of continuous experience in the nuclear energy field. the firm having been under contract to the Atomic Energy Commission for planning, development, design and construction of all facilities at the Eniwetok Proving Ground.

Kelly McBean will be in charge of the new division. He has been linked with the atomic energy program since 1948 when he was a member of the original survey party sent to map out the atomic proving ground in the Marshall Islands.

### NEW BEAUTYWARE BRASS FITTINGS

A completely new line of Briggs Beautyware brass fittings featuring the "Sculptured Look," plus an exclusive method of color integration with Beautyware plumbing fixtures, designed by Harley Earl Inc., nationally famous industrial designers, has just been announced.

Interchangeable color inserts are a feature of these sleekly modern and functional fittings, and may be obtained in sky blue, coral, sea green, soft yellow, sandstone or pearl gray to match exactly the compatible colors of plumbing fixtures. Snap-in inserts are also available in chrome or white.

Frank O. Cole, Jr., general sales manager, describes the new fittings as "the most exciting to be introduced in a decade." Complete data is available from the manufacturer, Briggs Manufacturing Company.

### WILLIAM DODDS TO HOLLY-GENERAL CO.

William Dodds, former supervisor of a C.P.A. firm, has been named to the position of Controller of the Holly-General Company of Pasadena, a division of the Siegler Corporation, according to a recent announcement by W. J. Keegan, president of Holly-General.

Dodds is well known as a systems analyst.

### KAISER STEEL FABRICATING PLANT EXPANDS ITS NAPA DIVISION

Construction has begun on a $2,000,000 expansion of facilities at the Kaiser Steel Fabricating Division plant at Napa, according to Ernest L. Ilsey, general manager of the Napa and Fontana operations of the firm.

When completed in 1959, the expansion will nearly double the plant's pipe-making capacity. Major facilities under construction include a 50,000 sq. ft. addition to the pipe fabrication plant to house additional welding, facing, expanding and testing facilities, new buildings, and more handling and storage areas.

The expansion is aimed at keeping pace


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### WILLIAM M. MULLENEX NAMED BUSINESS MANAGER OF HANKS

William M. Mullenex has been appointed business manager of Abbot A. Hanks Inc., San Francisco. He was formerly manager of the General Superintendance Company's office in Moji, Japan and has had a wide experience in the supervision of sampling, inspection and analysis of many commodities.

### PAYNE COMPANY PROMOTES TWO

Dick Judson has been appointed new Factory Sales Engineer in the Pacific Northwest area for the Payne Company of Los Angeles, and will be responsible for all company sales and field engineering in the state of Oregon and southern Idaho, according to a recent announcement by Owen McComas, national sales manager of the firm.

McComas also announced the appointment of Donald E. Starr to the new position of head of the Application Engineering Department of the company. Starr will be in charge of production and dissemination of information on all Payne products to dealers, distributors, architects, engineers, contractors, and sales engineers in the field.

### HENRY M. TAYLOR APPOINTED MANAGER OF MARKETING STROMBERG-CARLSON

Henry M. Taylor has been appointed manager of marketing for Stromberg-Carlson, San Diego, according to an announcement by Harold P. Field, manager.

Taylor was formerly manager of customer relations for the Electronics Systems Division of Sylvania Electric Products Inc., Dayton, Ohio, in charge of new business contracts servicing for all facilities and military agencies. He is an electrical and mechanical engineer.

### ARCHITECT SELECTED

The architectural firm of Warnecke & Warnecke, Financial Center Bldg., Oakland, has been comissioned by the Oakland Unified School District trustees to design a new High School building to be built on Skyline Blvd. near Redwood Road at an estimated cost of $4,000,000.

### HORSE BARNS PLANNED

The architectural firm of Hale & Jacobson, 241 Vallejo St., Mission San Jose, is preparing plans for construction of new Horse Barns at the Alameda county Fairgrounds in Pleasanton for the Alameda county Board of Supervisors.

The new facilities costing $240,000, will replace present wooden barns with concrete structures. Each of the 6 barns will contain 32 horse stalls and 8 tack rooms.

### ROBERT A. OLIN FORMS NEW FIRM

Robert A. Olin, builder of a new residential community near Claremont, has announced the formation of a new construction firm to be known as the Olin Construction Company.

The company will maintain offices in Claremont and will specialize in residential and commercial construction. Olin has built many civic and commercial buildings in the San Gabriel and Pomona valley areas.

Olin is past president of the San Gabriel Valley Chapter of the Building Contrac-


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tors association, and is currently chairman of the association's legislative committee. He is also a member of the board of directors of the BCA, a director of the Home Builders Council for the State of California, and a board member of the State Building Contractors Association.

### LOS ANGELES MANAGEMENT CONSULTING FIRM GIVEN HONOR

Benjamin Borchardt and Associates, Los Angeles management consulting firm, has been elected to membership in the Association of Consulting Management Engineers, it being the first such membership issued to a West Coast firm.

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### NAHB ANNOUNCES FINAL PLANS FOR ANNUAL CHICAGO MEET

Chicago will take over as "homebuilding capital of the world" January 19, when industry leaders gather there for the 14th annual Convention and Exposition of the National Association of Home Builders.

An all-day "short course in merchandising" will kick-off a series of meetings on marketing and selling which will be participated in by home builders and representatives from all parts of the nation.

### WALTER F. PRUTER IS APPOINTED SALES MANAGER

Walter F. Pruter has been appointed General Sales Manager of the Pacific Tile and Porcelain Company of Los Angeles, according to a recent announcement by Robert G. Bailey, vice president and general manager of the firm.

Pruter was formerly manager of architectural sales for the west coast for Kaiser Aluminum and Chemical Sales Inc., and prior to that was assistant sales manager of plastering materials for the United States Gypsum Company in Chicago.


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### HIGH SCHOOL STUDENTS TAKE ARCHITECTURAL TOUR KERN COUNTY

Kern county high school students interested in the profession of architecture as a career were guests at a preliminary career conference and a tour of several Bakersfield architectural offices recently.

The project was sponsored by the architects of Kern county in conjunction with the 100th anniversary of the founding of the American Institute of Architects.

### UTAH CONSTRUCTION NAMES PERSONNEL DIRECTOR

M. C. Strittmatter has been named director of personnel relations for Utah Construction Co., according to an announcement by Allen D. Christensen, president and general manager.

Strittmatter was formerly director of personnel for General Telephone Co. of California, Santa Monica, and industrial relations manager for American Hoist and Derrick Co., St. Paul.

### PAUL E. FISCHER APPOINTED BY FIBERBOARD

Paul E. Fischer has been appointed manager of manufacturing, building materials division of the Fiberboard Paper Products Corp'n, according to a recent announcement by R. R. Galloway, vice president, building materials division.

He succeeds Ben A. Wilson, who has been named director of purchases for the firm. Headquarters will be in the company's San Francisco executive offices.

### SERVICE STATIONS

Engineers Clyde Carpenter & Associates, 2614 S. Peck Road, Monrovia, have completed working drawings for construction of 2 1-story, reinforced brick service stations for the General Petroleum Corp., to be built in Los Angeles.

Each building will be 25x52 feet with composition roofing, steel sash, overhead doors, concrete slab floor, storage, sales and lubrication rooms, restrooms. The estimated cost is $53,000.

### LUTHERAN CHURCH

Architect David Harkness and Associates, 601 California Avenue, Bakerfield is preparing drawings for construction of a new church building in Las Vegas, Nevada, for the Calvary Lutheran Church.

Construction will be concrete block and stucco, steel frame, rock roof, concrete and asphalt tile floors, air conditioning


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and heat units, kitchen, and will occupy 3,650 sq. ft. of area.

### TV STATION PLANNED

Architect Welton Becket & Associates, 153 Maiden Lane, San Francisco, is preparing plans for construction of a new TV Studio and Offices to be built in the Jack London Square in Oakland for the San Francisco-Oakland Television Inc.

The new building will have 13,900 sq. ft. of area for studios and 9,200 sq. ft. of office space. The station's transmitter will be installed on Mt. San Bruno in San Francisco and when completed the studio will broadcast over channel 2. Estimated cost of the project is $250,000.

### NUT TREE EXPANDS

Architects Dreyfuss & Blackford, 2127 J. Street, Sacramento, are working on plans for construction of a long-term replacement of the present restaurant facilities at the Nut Tree Restaurant near Vacaville.

The plans call for construction of a new outdoor dining area and enlargment of the present parking facilities.

### AIR POLLUTION CONFERENCE

The semi-annual Technical Conference of the Air Pollution Control Association was held this month at the Fairmont Hotel in San Francisco, it being the first time the meeting has been held in Northern California.

The Technical Program is directed toward the role of microscopic and submicroscopic particles in air pollution. The problem of small particles affecting manufacturing and processing of materials is becoming acute for many industries and contamination control of the air is of major concern to those industries now faced with regulations.

Benjamin Linsky of the Bay Area Air Pollution Control District served as chairman of the conference.

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### CONSTRUCTION SPECIFICATIONS INSTITUTE TO MEET

The San Francisco Area Chapter of the Construction Specifications Institute held their regular meeting on November 20th at DiMaggio's Restaurant, San Francisco.

Gene Hundley of the E. M. Hundley Hardware Company was the principal speaker, discussing "Hardware Specifications" from the point of view of the architect, contractors and supplier. A general discussion followed the speaker's talk.

### CAFETERIA BUILDING

Architects Wright, Metcalf and Parsons, 2323 E Street, Bakersfield, have completed plans for the construction of a cafeteria building at the Lost Hills Elementary School, Lost Hills, for the Lost Hills Union School District.

The 66x78 ft. building will be of frame and stucco construction with composition roof, concrete and asphalt tile floor, air conditioning, plaster, steel sash, in-wall tables and benches, acoustic tile, complete kitchen equipment. Estimated cost is $120,000.


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Architect and Engineer, published monthly at San Francisco, Calif., for October 1, 1957.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Architect and Engineer, Inc., 68 Post St., San Francisco, Calif.
Editor, Edwin H. Wilder, 68 Post St., San Francisco, Calif.

Managing Editor, None.

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The man in the wheel chair leaned into the microphone. "Christmas!" he snarled. "Bah! Humbug!" And, as they had in Christmases past, millions of young listeners chilled at the mental picture of the baleful Scrooge.

It was a Christmas institution, back in the Forties, this annual reading of Charles Dickens' classic. Its reader was something of an institution himself. In his turbulent lifetime he had been an unsuccessful painter but a good amateur second-baseman, a composer whose music was played by the New York Philharmonic, and a model for Frederick Remington.

To most people, though, he was Lionel Barrymore, the actor, and they loved him.

He was both crusty and kindly (he loved reading "A Christmas Carol"), adventurous, stubbornly independent in thought and outlook. And game as they come. Although an accident in 1936 imprisoned him in a wheel chair, he went resolutely on—working in motion pictures and making public appearances for nearly twenty years more.

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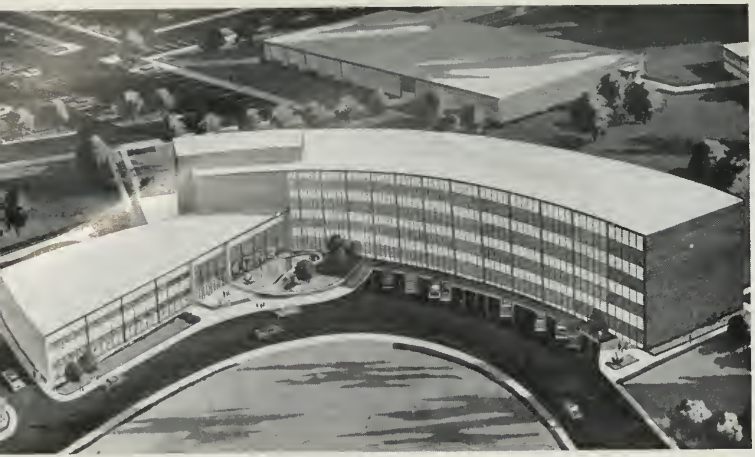
# ARCHITECT AND ENGINEER

WESTERN CHURCH DESIGN

ACHIEVEMENT IN ART AND ARCHITECTURE

DECEMBER 1957



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**COVER PICTURE**

WESTERN
CHURCH
DESIGN
for 1957

Features a number of outstanding Church buildings designed by Western architects, i.e. this Port Angeles, Washington, Holy Trinity Church by Durham, Anderson and Freed.
For complete story turn to Page 6.

**ARCHITECTS' REPORTS—**

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# . EDITORIAL NOTES .

With best wishes

to you and yours

for a

merry christmas

and

a happy new year

*Architect and Engineer*

# NEWS and COMMENT ON ART

### CALIFORNIA PALACE OF THE LEGION OF HONOR

The California Palace of the Legion of Honor, Lincoln Park, San Francisco, under the direction of Thomas Carr Howe, Jr., has announced the following special exhibitions and events for the Christmas and New Year's holidays:

EXHIBITIONS: The 2nd Pacific Coast Biennial Exhibition, an exhibition assembled by the Santa Barbara Museum of Art and presented in San Francisco with the cooperation of that museum and the Art Museums of Portland and Seattle; Paintings by Vera Adams Davis, a Memorial exhibition; Color Photographs by Margaret Morse; Paintings by Cecil Everly, Robert Stering and Jerrold Davis.

The Achenbach Foundation for Graphic Arts: At the Musuem—William Blake (1757-1827), an exhibition honoring the great visionary artist and poet on the 200th anniversary of his birth, with loan contributions from museum and private collections; The Story of Christ in Prints by Albrecht Duerer and his contemporaries; and on loan at the San Francisco Public Library is a group of Photographs of California by Hugo P. Ruedinger.

EVENTS: Special holiday Organ Recital every Sat-

(See Page 30)

## M. H. DE YOUNG MEMORIAL MUSEUM

**Golden Gate Park San Francisco**

"THE ADORATION OF THE SHEPHERDS" Walnut Panel

French Painter, School of Provence, about 1500

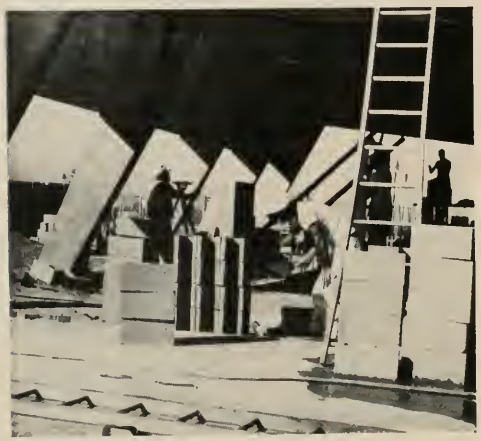
From the Samuel H. Kress Collection

KERN COUNTY

# COMMUNITY ACTIVITY CENTER

## USES "BENTS" IN CONSTRUCTION

By **CLARENCE CULLIMORE, SR.**
*F.A.I.A. Architect*



**Reinforced concrete BENTS, poured on the ground, were hoisted into place; 40-ft. crane lifted 10-ton roof slabs of reinforced concrete into position; concrete-block walls then laid in place.**

Kern County has dedicated its community activity center building at Heritage Park on the fringe of the City of Bakersfield. It is constructed with reinforced concrete **bents** for its basic structure. Although the building is located a little off-the-beat of sidewalk superintendents, the job attracted a goodly number of curious spectators, intrigued by the drama of building the roof before the house. This procedure has an added advantage, especially in Central California's fruit-basket valley of the San Joaquin, where the summer sun zooms the themometer to more than 100 degrees in the shade. In such a circumstance there is an advantage for bricklayers to work in the shade; and shade is good for the mortar while it sets.

The on-lookers saw the crane grip the roof-slab

(See Page 32)

# Bay Area Transit

## For Peninsula Counties

By GEORGE S. HILL
*Consulting Engineer*

Before the bill for establishing a Bay Area rapid transit system was passed by the Legislature, there was some reluctance on the part of San Mateo County to its being included in the district. As local consent and approval is a requisite in community planning, the bill as finally passed provides for exploring the possibilities thoroughly before commitments are made. County by county approval is required, thus avoiding arbitrary action.

### Description of Engineers' Plan

A detailed description of the Peninsula Line as recommended for the first stage of construction is given on pages 60-61 of the engineers' report. For discussion purposes it begins at 14th and Valencia Streets in San Francisco. It follows Valencia Street, Alemany Boulevard, the Southern Pacific Bernal Branch right-of-way, El Camino Real, and the abandoned private right-of-way of the Municipal Railway to Burlingame, where it joins the main line of the Southern Pacific Company. It then follows the railroad right-of-way to California Avenue and the Los Gates Branch Line to a terminus at Arastradere Road north of Los Altos.

### Mass Transit on Grade-Separated Rights-of-Way

"The only mass transit which can be considered rapid is that which operates over a right-of-way separated both vertically and horizontally from any route carrying other traffic vehicles." (p-7 engineers' report)

### A Regional Freeway Network

"The existence of a very large group for whom only the private motor vehicle provides effective transportation, dictates a strong highway system as the very first requirement in satisfying over-all transportation demand. A regional highway system of freeway quality is essential." (P-37, ER)

### The Peninsula Line

"The Southern Pacific commuter train service has been the backbone of Peninsula urbanization. Settled initially as residential suburbs of San Francisco, the Peninsula communities have grown largely because transportation into the major employment center has been relatively fast and efficient. Patronage of the Southern Pacific commuter service has been actually increasing at about two percent per year." (P-43, ER)

### Adaptability of the Southern Pacific Peninsula Line

"The utilization of the Southern Pacific for modern rapid transit would require elimination of more than 70 grade crossings. These are recognized as very undesirable, even under present operating conditions. With the high speeds and short interval service of rapid transit they would be intolerable. The conflict of short-interval off-peak rapid transit service with freight movements and long-distance passenger trains would so hamper one service or the other as to necessitate separate tracks for rapid transit service. And these additional tracks would have to be grade-separated not only from intersecting motor-vehicle traffic, but also from the industrial track connections by which the Southern Pacific Company makes delivery to the several customers." (The plan proposes to use the right-of-way for an elevated railway). "Specifically, could the Southern Pacific tracks be extended from the present station to make delivery in the underground terminal on Market Street as contemplated in the Optimum Plan? This would necessitate electrifying the route at a cost of $500,000 to $600,000 per mile. Further, Southern Pacific officials have informed us that because of the increased patronage that such improved delivery would generate and because of conflicts with freight and long-distance passenger movements, a third track would have to be added to their system. In the aggregate the cost of an underground connection to Market Street, electrification, and the addition of a third track would be on the order of $75,000,000. This investment in what would still be a non-grade-separated railroad, unsuitable for short-interval off-peak service, is clearly unjustifiable when compared with the $136,800,000 cost of a separate rapid transit system. We conclude therefore, that there is no desirable intermediate program between existing Southern Pacific service and the rapid transit system we recommend." (P-51, ER)

"The off-peak interval would be 15 minutes." (P-76, ER)

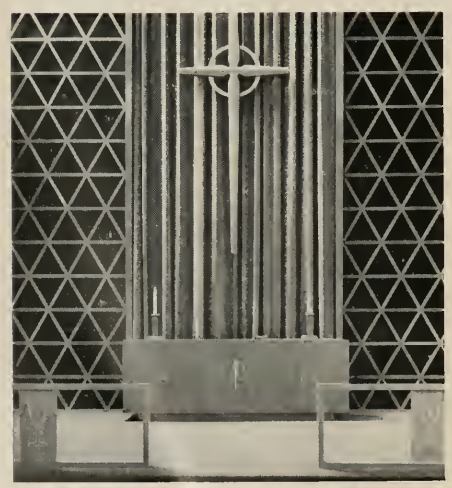
### Peninsula Approximation

"The closest approximation in the region to the proposed future transportation system occurs on the Peninsula, where the Southern Pacific Railroad, the Pacific Greyhound Lines, and the highway-freeway system presently comprise the transportation framework." (P-69, ER)

### Description of Proposed System

"Unlike the eastern transit systems, the system proposed for the Bay Area is interurban in character. It would have stations spaced on the average 2½ miles apart, compared with ½ to 1 mile on existing urban systems. The proposed average speed of 45 miles per hour, including stops, is twice as fast as the

(See Page 24)



# WESTERN CHURCH DESIGN

## A HIGH POINT OF ACHIEVEMENT IN ART AND ARCHITECTURE

By ARTHUR W. PRIAULX

**HOLY TRINITY LUTHERAN CHURCH** of Port Angeles, Washington, designed by Durham, Anderson and Freed, Architects. Lower view is chancel fittings carved by Roger Sogge, sculptor.

Inside and out, contemporary American churches are an impressive demonstration of allied art and architecture at a high point of achievement.

Today's church designs may vary from the extremely simple to the breath-taking dramatic, and cover as wide a range in form and style as the variety of creeds they serve. Once bound by a self-imposed dedication to tradition, church architecture has finally burst its bonds and today offers the imaginative architect as great a range of potential opportunity as does the work of any other client.

No longer does church design border on the charity or cut-rate plan. Experts say there will be 70,000 church structures designed and built over the next decade to a total cost of six billion dollars. In addition, it is estimated by the same source that 12,500 church projects involving Sunday schools, parish homes and other related religious buildings will be designed and erected during the same years and that these extra structures will add another billion and one quarter dollars to the church pool.

With such sums of money involved, it is no wonder that the nation's leading architectural firms consider church design a vital part of their business financially and an inspirational challenge from a design standpoint.

**ST. JAMES PRESBYTERIAN CHURCH**
**Bellingham, Washington**

**TOP VIEW: The Cross and tower of wood and stone is a beacon for the surrounding countryside.**

**AT RIGHT: Is shown an interesting use of wood and stone by the architects Durham, Anderson and Freed.**

**REDEEMER LUTHERAN CHURCH, Cushing, Okla.**

There are some 5,000 architectural firms in the U. S. which are regularly engaged in church design or occasionally enter this field. The estimated volume of 70,000 churches to be built over a ten-year span means that each of these firms will have something over a dozen churches in their offices, plus other religious work which should total more than a million and a half dollars if the national average of $85,000-$100,000 per church is used.

Church and religious categories account for just under ten per cent of the total building volume for non-residential construction. It must be concluded that the outlook for church building is bright indeed.

Design expression is still the most formidable obstacle that an architect for a church structure faces in this era of contemporary thought and action. As Pietro Pelluschi, dean of architecture at M.I.T. and once a prominent west coast designer says, "The contemporary architect is confronted by the difficult problem of creating forms appropriate to a modern society without destroying the symbols that have given form validity to the idea of the 'church' in the past."

While many an architect today refuses to be bound by blind allegiance to the forms of the past, there is still, nevertheless, a reluctance to abandon every vestige of the traditional. Most designers attempt to preserve to a great or less degree the feeling of emotional continuity which is the very essence of religion itself.

Certainly, here in the western states, architects during the past dozen years have evolved a multitude of shapes and forms for our religious houses which have opened up a vast new concept. The very freedom of their design has been dramatic. On the following pages will be shown some of the best examples of the "new church," and they could hardly vary more in character and appearance. Yet, very much in evidence in every case is the effort of each architect to achieve an accepted goal and a common end of developing a theme for each of these structures which is conducive to worship.

**TOP VIEW: Interior view showing design predicated an low cost budget by Architect A. Blaine Imel, Tulsa, Oklahoma.**

**AT LEFT: Exterior view shows attractive appearance.**

Most churches must serve a worldly community, but offer a promise of a transcendent community. Therefore, they must be inspirational, serene and they must be beautiful with symbolism often only subtly apparent. They must exemplify the very highest standards of excellence in design and impression.

To help achieve the aim of inspiring the loftiest thoughts, many an architect insists on using some form of the gothic arch, as Durham, Anderson and Freed, A.I.A., did so effectively in their Holy Trinity Lutheran Church of Port Angeles, Washington (see Page 6). Here, they have given careful attention to the organization of space, the upsweeping glu-lam gothic arches which suggest the most lofty ideals.

As in many cases, this church structure serves all the various activities of the parishioners, young and old. The nave, seating 300 people, gains the atmosphere of worship through the combined use of sweeping laminated fir arches that support exposed natural finished hemlock decking and louvered sidewall fenestration composed of seedy marine antique amber glass and vertical grain fir. By bringing the arches down at the end of the pews and the use of clerestory lighting, visual length and height is added to the worship center, the architects observe.

**CONGREGATIONAL CHURCH**

**Grand Junction, Colorado**

**TOP VIEW: Shows interior of this Rocky Mountain region church designed by architect H. Summerfield Day.**

**AT RIGHT: Exterior shows unique combination of modern and traditional forms.**

**ST. PAUL LUTHERAN CHURCH — Spokane**

**AT LEFT: Notive stone and western woods are used by architect Victor Louis Wulff in this Washington church.**

**BELOW: Exterior shows traditional Gothic form.**

The chancel fittings were designed and executed in riftsawn red oak by Roger Sogge, Portland sculptor, who worked with the architects, as did Bert Willemse of Portland, who designed and installed the chapel glass window in various colors of seedy marine glass. The exterior walls were finished in native stone and rough-sawn cedar channel siding.

Impressive simplicity is the keynote of still another church designed by Durham, Anderson and Freed, Seattle architects. The St. James Presbyterian Church of Bellingham, Washington (see Page 7), depends to a great extent on the delicate and subtle use of native stone and wood combined with an unencumbered gothic form for its expression of the worship motif.

St. James was designed to seat 400, including choir and a balcony. The central dossal of greenish cast, local Sauk river stone, which is flanked by the organ grillwork, is flooded with natural daylight from a continuous skylight concealed from direct vision by the final arch.

**ABOVE: A touch of Orient in Hawaiian Mission at Hilo, by Architect H. W. Burton. Native woods and laminated arches combine their beauties here.**

**BELOW: Striking traditional design of Salem Lutheran Church at West St. Paul, Minnesota, by Architects Magney, Tussler and Setter, shows simplicity.**

The hand-carved oak Celtic cross was designed and executed by Roger Sogge. A light gray-green central aisle and chancel carpet has been used to carry continuity of the dossal wall. Louvered sidewalls and the absence of pendant-type lighting fixtures help to focus the worshipper's attention upon the chancel area. The designers' purpose was to create a restful, inspiring room in which to worship.

Fir laminated gothic arches form the main structural element at St. James. These arches support three-inch, tongue-and-grooved wood decking with hand-split resawn cedar shakes as the roofing material. The exterior has been harmonized with the interior and tied to the existing parish house. The stone tower supporting the cross above can be seen from many blocks away.

A popular contemporary church form, often used for purposes of economy or where a low site demands a taller than normal structure, is the A-frame roof style, sometimes called the wedge. There have been some surprising and pleasing variations of this form since this design technique was successfully used by Warren Weber, A.I.A., Portland, with his Cedar Hills Congregational Community Church (see Page 18 bottom). Weber's design may not have been the first in the wedge style, but it has been widely published during the past few years.

An interesting use of the wedge form was developed at Cushing, Oklahoma (see Page 8), by A. Blaine Imel, Tulsa architect, for the Redeemer Lutheran Church congregation. He used nine large glu-lam beams with spans varying from twenty-three to thirty-five feet as the only structural elements in the church. These were covered with striated, three-inch decking to form the main roof, and the attractive tim-deck roof was left exposed and stained to a soft, natural color. Four-inch striated decking was used for the balcony floor, the southwall, altar, and balcony rail. An interesting feature of this design is the use of the terminal beams as exposed framework coming down out of the roof to form a marker for the aisles which are on either side of the pews and covered by an offset low-roofed wing along either side of the church.

An interesting contrast in the chancel wall of exposed decking is a tall plastic panel which reaches upward inspirationally from just above the chancel cross to a dramatic point at the roof line. On either side, plastic panels, colored to match the liturgical colors of the congregation, have been installed at irregular intervals, the smaller panels being exactly the width

**CENTRAL PRESBYTERIAN CHURCH**

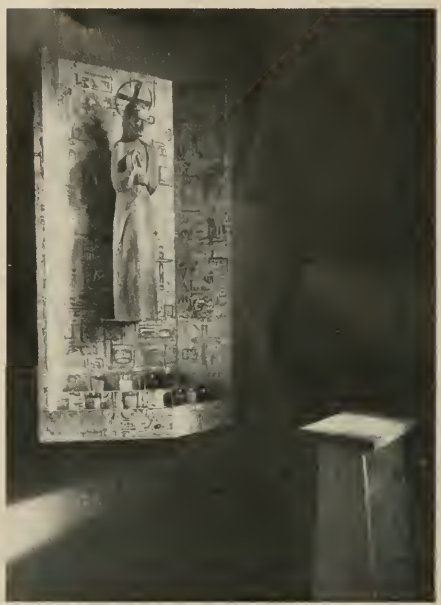
**Eugene, Oregon**

**Designed by architects Freeman Hayslip, Tuft and Hewlett, is a masterpiece in use of native wood and studied utilization of space.**

of the decking. Diffused, soft daylight envelops the chancel area from this novel form of lighting and from openings in the chancel roof which are capped on the exterior side by plastic bubbles. The upsweeping beams are unbroken with any lighting fixtures or other ornaments so that the worshipper has a sensation of looking upward and away into undefined distance.

Another type of church in the Colorado country was designed by H. Summerfield Day, architect, for the Congregational Church in Grand Junction, Colorado (see Page 9). Here the architect used brick and wood in a most effective team, both inside and outside this lovely church structure. The sanctuary takes different form, a high vaulted shape. Glu-lam Tudor arches with heavy haunches form the graceful, sweeping lines of this inspirational room of worship. The arches of highly polished Douglas fir are free standing and they form a dividing line between outside aisles and the pews. The roof section rests and is supported by the arch framework like a lightly placed chapeau. This effect is highlighted because the walls of the church are in contrasting brick. Purlins and decking have been left exposed so that the warm texture of the wood and brick gives of its richness and life to bring a subtle friendliness to the church.

Cedar siding and brick have been used most effec-



**TWO BEAUTIFUL DESIGNS**

**By**

**James Fitzgerald, Seattle sculptor**

**Created in office of Paul Thiry, F.A.I.A. for St. Vincent Home for the Aged Chapel.**

**The side shrine is of burnished brass and the statue in walnut.**

**Altar is of Wilkeson stone and tabernacle bronze and extruded aluminum.**

tively for the exterior of this church building which has contemporary variations, but which depends, too, on use of much of the traditional for its main theme.

In Hilo, Hawaii, architect H. W. Burton has come up with a delightful combination of the traditional with a soft blending, almost a suggestion, of the orient (see Page 11 top). The Kukuau branch of the Kilauea Avenue Hawaiian Mission Church uses the parabolic arch of glu-lam fir as the main structural element with outlooker extensions forming a framework for the roof, and, at the same time, the outlookers give the illusion of the pointed gothic arch.

The interior of the church is designed in native woods and much of the beauty of this simply designed building comes from the grain and texture of these well polished woods and their deep patina. The tie with the orient comes from two circular openings back of the chancel into which are worked geometric figures in wood which are suggestively oriental.

At Spokane, Washington, architect Victor Louis Wulff has created an unusually beautiful church for the St. Paul Lutheran congregation (see Page 10) by a telling use of native stone wedded with soft-textured wood and glu-lam wood arches. An outstanding design feature of this church is the use of large, decorative wood windows on each wall which contrast effectively with the native stone walls.

Again the gothic arch was used to form the lines of the nave and, as in many of the modern churches, the arches have been left free standing. A larger than

**PRESBYTERIAN CHURCH**

**San Manuel, Arizona.**

**Budget limitations controlled the distinct design of this Church by the architect F. O. Knipe.**

**Note building conforms to surrounding low hills.**

**GENEVA PRESBYTERIAN CHURCH**

**Modesto, California**

**Simple, dignified, designed by architect John Bomberger.**

usual outlooker, also of glu-lam wood, fastens to the arch near its peak and in turn supports the main roof section. The sanctuary is set apart by a wooden membrane which forms an overhead shelter and is flush with the line of the gothic arches.

To avoid encumbering the upsweeping line of the arches, the architect provided for two rows of hanging hour-glass brass lighting fixtures well toward the outside of the pew line.

In the tradition of churches of the past, often characterized by their massive architecture, is the Salem Lutheran Church of West St. Paul, Minnesota, designed by architects Masgney, Tussler and Setter (see Page 11 bottom). There is a tremendous feeling of power in this design, an uplifting power which certainly must have an impressive effect on the congregation. Wood and stone are the motifs for the design. Huge glu-lam arches with extensions to form the aisles mark the structural lines of this imposing edifice. A simple wooden cross on the chancel wall of stone is imposing in its oneness of purpose. Exposed wood purlins and decking make up the entire roof and wall

**SEVENTH DAY ADVENTIST CHURCH**

**Hawthorne, California**

**Architects A. M. Richards and Associates use the Tudor arch in a pleasing manner.**

**FIRST FREE METHODIST CHURCH, Seattle, Wash. Designed by Durham, Anderson and Freed, has charm and dignity in every line. Architects developed interesting series of wood panels.**

section of this church. The chancel area is lighted by indirect, shimmering, diffused light to give a holy quality to that area. This is a church in the older tradition built with excellent utilization of modern materials. Outside, the Salem Lutheran Church is a perfect wedge—a delightful use of a modern form for a building which is so traditional inside.

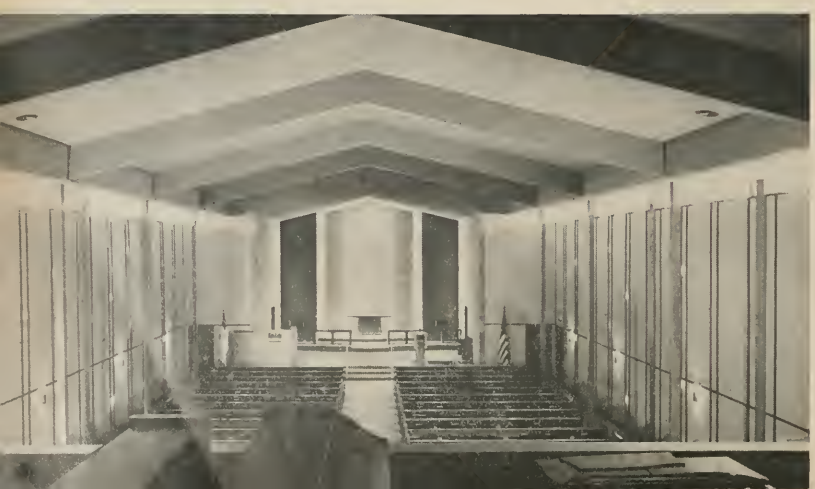
One of the most interesting of western churches is the Central Presbyterian Church of Eugene, designed by architects Freeman, Hayslip, Tuft and Hewlett (see Page 12). A large congregation finds in this block-square grouping of buildings room for all of its religious requirements.

The use of gothic arch and the pointed roof line gives continuity throughout this religious unit and follows from main sanctuary to classrooms and even finds expression in the covered walkway which joins the main church with the classroom building.

The interior of the church is clean of line, almost completely designed in wood. The central feature is the small, but sturdy gothic glu-lam arches which are exposed full length. Without haunch, the outlooker forms the lower roof line. This is a vaulted room, unencumbered as so many modern architects conceive these worship centers. Decking is exposed, but without purlins. Walls are beautifully done in wood. The exterior features cedar siding and brick used in ornamental pattern with offset. A glu-lam pylon in the center court is particularly impressive.

F. O. Knipe, architect of Tucson, Arizona, has designed the San Manuel Presbyterian Church in San Manuel, Arizona to fit into the Arizona countryside (see Page 14). It is snug and ground hugging. To achieve this effect, he decided on pitched glu-lam beams to carry his main roof section of the auditorium and straight glu-lam beams elsewhere. This decision

**FIRST METHODIST CHURCH**
**Hawthorne, California**



**Architect Culver Heaton, Pasadena.**

**An excellent example of the imagination which the architect applies to his design problem.**

was made to keep within the limited building budget of the congregation and to get the desired interior and exterior effect. Brick was used for the walls and the interior roof section is exposed decking applied directly to the pitched beams. The church is adequate for the needs of the people it serves and is impressive in its simplicity.

When architect John Bomberger of Modesto started out to design the Geneva Presbyterian Church of Modesto, California (see Page 15 top), he decided to use forty-eight foot long glu-lam fir beams to span the main sanctuary to give him the height he wanted. The beams rest on concrete columns and in turn support a decking of cedar which has been left exposed. This is an interesting solution of a problem of economy.

The Seventh Day Adventist Church in Hawthorne, California, designed by architects A. M. Richards and Associates is an interesting addition to the church structures of that area (see Page 15 bottom and center). The Tudor form was used most effectively with glu-lam Tudor arches forming the main structural elements of this fine church. Exposed purlins and decking create a friendly overhead system which blends well with the walls of brick. A simpler Tudor arch was used in the youth chapel.

Pitched beams were used by arhcitect Culver Heaton to get the desired effect in his design of the First Methodist Church of Hawthorne, California (see Page 16 center and bottom). Here is a remarkably beautiful church which depends for its impression on the congregation on its studied simplicity of design. There is none of the sweeping, curved, upreaching form of the traditional here. Rather, there is a definite attempt to achieve this effect with the vaulted nave from which eyes naturally gravitate to the altar and the chancel area. There are no distractions in interior trappings. Concrete block has been used for the exterior walls of this edifice in a most impressive and effective variation.

## . . . WESTERN CHURCH DESIGN

The $250,000 First Free Methodist Church of Seattle, designed by architects Durham, Anderson and Freed to seat 900 people, with 250 of these in the balcony is outstanding. The room is shaped around laminated arches rising from the side aisles to a ridge 45 feet high. The end wall of the sanctuary is formed with a dossal hanging from roof to floor with brick panels on either side. There are lowered soffits over the side aisles with brick walls and small stained glass

**ST. ANDREWS PRESBYTERIAN CHURCH**

**Denver, Colorado**

**Modification of the wedge design is found in this church by architects Wheeler and Lewis.**

**VISITATION RETREAT**
**Near Tacoma, Washington**

**Designed by Architect Roger Gottelund and Roy Koczorski, associate, it is a combined Chapel and dormitory for forty.**

inserts. Major light comes from a series of screened wood panels down each side of the nave in the upper portions of the room plus a large skylight which dramatically lights the chancel area. A part of the floor of the nave slopes forward for better visibility.

Another low cost church having an interesting design is the St. Andrew's Presbyterian Church of Denver, Colorado, designed by architects Wheeler and Lewis (see Page 17). Designed to care for 210 people, it has been built at a cost of $12.55 a square foot, including basement and first floor. A modification of the wedge form was used in this design with a lower roof line than is customary in this style, but the economy factors of the design, which combines walls and roof in one section, are apparent.

One of the unusual churches built recently in the Portland, Oregon area is the Tenth Church of Christ Scientist, designed by architects Edmundson and Kochendoerfer (see Page 19). An attractive, low lying building, the sanctuary is separated from the church school, although the two structures are joined and a covered entrance walk parallels the church school building while leading directly to the main sanctuary. A combination of brick and cedar siding create a

**PARKROSE COMMUNITY CONGREGATIONAL CHURCH**

**Portland, Oregon.**

**This interesting addition, designed by Warren Weber, Portland architect, uses laminated mullions to emphasize and decorate full glass wall.**

**TENTH CHURCH OF CHRIST SCIENTIST**

**Portland, Oregon**

**Designed by architects Edmundson and Kochendoerfer, is one of the most unusual in the Northwest—its warm textured wood and brick exterior is matched by similar interior treatment.**

building which fits well into the residential neighborhood where it is located.

The building features an interesting use of glu-lam mullions exposed outside from the exterior brick wall and completely encircling the curved perimeter of one end of the building. Sturdy glu-lam posts have been used to support the wide sweeping roof of the covered walk. Glass has been used liberally throughout the building to insure ample natural light during daytime services.

These are but a few of the many outstanding and remarkable church structures designed and built in the West during the last year, but they serve to illustrate the wide variations in concept among architects and congregations of what each wants in his hallowed church meeting halls.

It occurs to us that in each instance, oftentimes within the limitations of rigid budgets, the architect has sought and successfully striven to produce a

(See Page 30)

MAIN ENTRANCE

# OFFICE - COURT BUILDINGS

## COUNTY OF CONTRA COSTA

RICHMOND, CALIFORNIA

ARCHITECTS: Donald L. Hardison, A.I.A.
Harry B. Clausen, A.I.A.
S. Richard Kamatsu, A.I.A.
Associate Architects

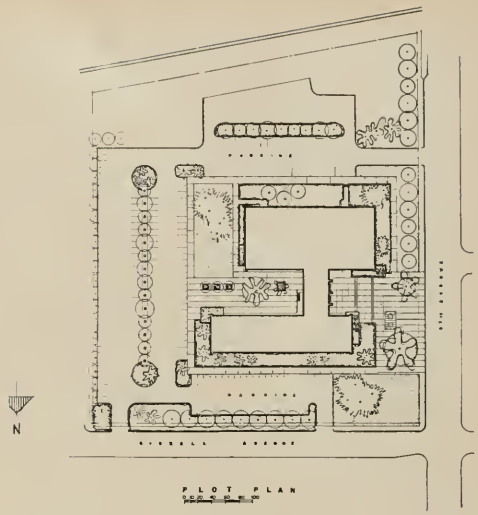
STRUCTURAL ENGINEER: Hall, Pregnoff & Matheu

MECHANICAL ENGINEER: G. M. Simonson

LANDSCAPE ARCHITECT: Lawrence Halprin

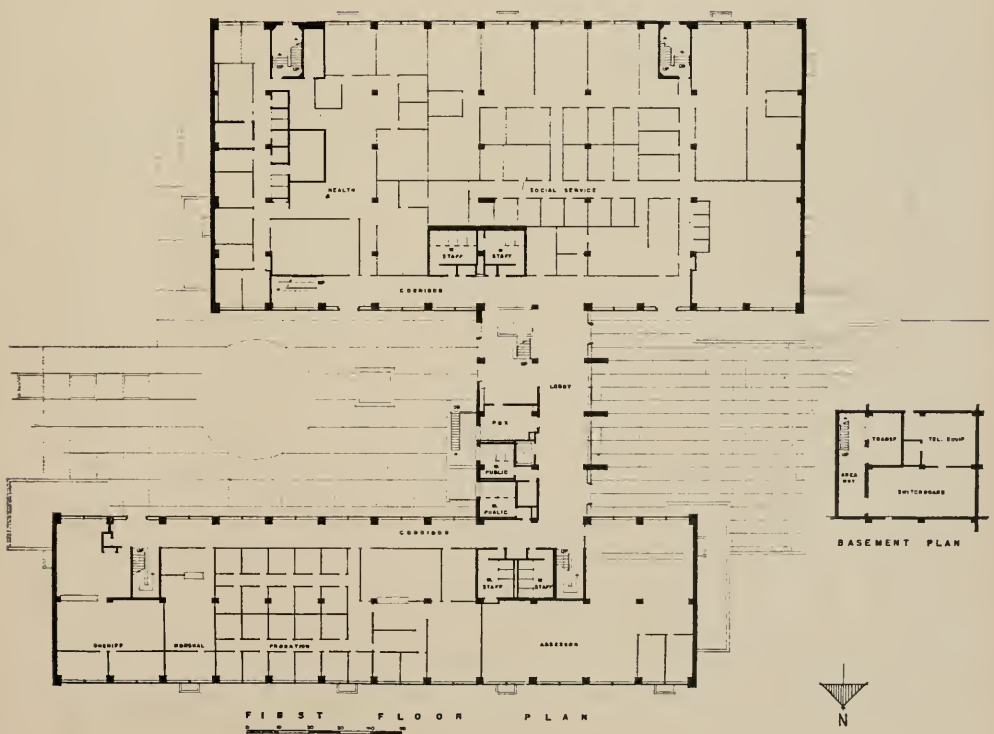
***AREAS:***

| | |
|---|---|
| **Total Volume:** | **1,333,600 cu. ft.** |
| **Total Area:** | **75,550 sq. ft.** |
| **Floor Heights:** | |
| **Basement** | **10'3"** |
| **1st Floor** | **14'3"** |
| **2nd Floor** | **14'3"** |
| **Courts** | **24'3"** |
| **Penthouse** | **15'4"** |




***COST:***

**Total Cost $1,355,273.00** ..... { **Per Cu. ft. $10.21** / **Per Sq. ft. $18.43**



**PROBATION DEPARTMENT**

**Showing interview offices with flexible partitioning and underfloor utility services throughout.**

The new Contra Costa County Office and Court Building, which has been added to the increasing group of modern structures comprising the carefully planned Civic Center development in the City of Richmond, presents a pleasing and striking contrast to the public's general conception of a governmental building.

The attractive color treatment of the exterior and lobby by the architect is obvious upon approaching and entering the building. Richmond Buff brick walls

**COURTROOM: Municipal and Superior Courts. Note offset rail, movable bench and adequate witness area. Magnetic chalk board permits metallic diagramming. Air conditioned throughout. Walnut side panels and birch rear panels.**

have been used, with the exception of portions designed for some future expansion in which case concrete is the form of construction. The general shape of the facility is in the form of a large "H," with the patio and entire surrounding area thoroughly landscaped.

The functional aspects of various county government departments have been arranged with movable partitions with under-floor electrical conduits for variation in use and enlargement or reduction of any given space, and there is an employees' pent house room on the third floor.

The main stairway from the first to the second floor is of steel with aluminum rail, with Red Verona Marble treads and risers. The main lobby floor is of Verona in a field of white Columbia marble.

The Superior Court and Municipal Court rooms are provided with a movable bench and jury box to permit enlargement of the witness area if desired. A magnetic chalk board permits metallic diagramming and the sidewalls of the courts are in Walnut and Birch panels.

The building is air conditioned throughout with forced air and hot water heating. Construction is of steel frame reinforced concrete piers and spandrels, reinforced concrete footing and concrete foundation; concrete floor construction with marble, linoleum tile, cement and cork finished floors; composition, marble, plywood, stucco, brick veneer, marble, and porcelain enamel walls; acoustical ceilings, and asphalt and gravel roofing.

**MAIN STAIR from 1st to 2nd floor is of steel with aluminum rail, with Red Verona Marble treads and risers. The lobby floor is of Verona in a field of white Columbia Marble.**

**REAR PATIO COURT Elevation from parking lot. Richmond Buff brick walls, except concrete for future expansion. The patio and building area has been thoroughly landscaped.**

# Bay Area Transit

## For Peninsula Counties

(From Page 5)

speeds of present-day rapid transit systems, which are limited to urban operations. In these respects the system proposed for the Bay Area is more comparable to a commuting railroad than to existing rapid transit systems. On the other hand, unlike most commuting railroads, it would have a frequent interval of service in off-peak hours. The Bay Area system is therefore unique. It is intended to operate as a complement to a system of freeways, expressways and arterial highways in an area where automobile ownership per capita is very high." (P-69, ER)

### Integration with Local Transit Feeder Systems

"We cannot overemphasize the importance of effective co-ordination and integration of the rapid transit system with the vast networks of existing surface transit lines, both local and interurban, in the Bay Area. A co-ordinated system of surface transit and rapid transit essentially provides two important advantages: traffic is fed into the rapid transit system which acts as the backbone of public passenger transportation, and unnecessary surface transit is effectively channeled into the rapid transit operation. The success of the rapid transit system in the Bay Area will depend on establishing desirable relationships between the surface and the rapid transit lines. We have assumed that substantially all existing interurban transit operations serving the Bay Area would upon the inception of rapid transit service, be redirected and integrated with the new system and that the latter would serve as the backbone of public interurban transportation." (P-77, ER)

### A Railroad View of Rapid Transit Proposals

On June 12, 1956, Claude Minard, Director, California Railroad Association, addressed the Commonwealth Club, giving the Southern Pacific's point of view relating to the Bay Area transit proposals. Quotations follow:

"The Southern Pacific has made no secret of the fact in times past that given the opportunity it would be willing to abandon commuter service, which operates at a loss."

"Railroads are common carriers of persons and property, at a price which is made public in advance. More and more of the annual gross revenues of American railroads are coming from the movement of freight. This fact however must not be construed to mean that the railroads desire to abandon their function as carriers of passengers. In World War II the railroads carried 97 per cent of all organized military movements in this country."

"Many causes have contributed to the large deficits incurred by the railroads in their passenger business. Chief among these have been the growth of subsidized competition (both air and highway), the failure of regulatory bodies to permit abandonment of unprofitable rail passenger service, and the transfer of postal business from the railroads to air and highway carriers."

"Even if public support and approval is to be given to a proposal for rapid transit facilities to be operated as a public provided agency, there will still be a considerable period of time during which this area will be required to rely upon existing commutation services."

"The proposals are based upon the assumption that a sum of public credit must be provided sufficient to purchase rights-of-way and other capital outlays that are required. I have some difficulty in believing that it is going to be a simple task to convince the voters in this area that they should invest their money in a project which is not attractive to private capital."

"Presently provided railway facilities might even surpass those proposed if given the same opportunity of being (1) relieved from the payment of taxes, (2) supported by public credit, or (3) allowed to set rates at their own discretion."

"It may be unquestioned that the entire area would gain great economic wealth as the result of an adequate mass transportation system."

"The railroad view is that since it is compelled by law to continue rendering a mass transportation service in this area, it will do so to the best of its ability."

"Paramount is the requirement that nothing shall be done which will intensify the demand for grade separation structures on the railroad. This is a sufficiently burdensome problem for the railroad without being complicated by additional transit operations. The railroad has been mindful of the need to preserve potential industrial sites along its right-of-way. These must not be lost merely because of a demand for further passenger transport facilities. Adequate rapid transit cannot be permitted to mean that the railroad shall place its ability to move freight of this area in jeopardy."

### Conclusions

Some of the conclusions which may be drawn from the above comparisons of the viewpoints of the engineers and the railroads are as follows:

The passenger service rendered by the railroads both in war and in peace times is essential, and any part of its abandonment would require consent by the regulatory bodies, both state and national.

The profitable part of railroading is from its transport of freight, but its passenger business is generally operated at a loss.

In order to reduce this loss, it is sometimes necessary to curtail service or abandon operations.

Losses are due to subsidized competition from other modes of travel, both by air and highway. Because of the air-lines, long distance service is being reduced or eliminated.

Adequate first class transportation is as essential to a community as elevators to an office building. Although the railroads are capable of providing a superior type of transit service, they should not be required to finance unprofitable operations. It follows that it is necessary to subsidize such service in one way or another. It therefore becomes a public responsibility to devise means of providing this essential service. This should not be done by establishing another and competing system and thus duplicating an investment in transit facilities.

The existing service is good but infrequent, and lacking in distribution facilities. Much time is lost at the terminals and therefore any advantage it might have over personal transportation is nullified.

The fact is inescapable that even though commute operations were to be discontinued, or an elevated railway built as proposed, the question of grade separation of the main line would still remain as a problem to be solved. Piece-meal and hit-and-miss grade separations are not the answer. It is just as necessary to eliminate all grade crossings of rapid transit lines as of freeways, if high speed with safety are to be provided. In the planning, mutual co-operation between the railroad and the counties is needed. For freight connections the main line must remain at or near ground level.

Without grade separations, delays due to long freight trains create a very definite fire-hazard.

The grade separations which are such a bugbear to the railroads might well be made a part of the Bay Area plan and be co-ordinated with it. The Bay Area transit bill known as Senate Bill 850 as finally passed and signed by the governor, empowers the district to make contracts with other transportation agencies. What is also needed is federal legislation permitting railroad taxes to be used for railroad purposes, including elimination of grade crossings.

When mass transit becomes as modern as the automobile, it will again be used. The improvements in the automobile and the great extension in its use merely interrupted the progress of public transit. It is now realized that the use of the family car is not a complete answer to our transit needs. Street congestion is approaching a condition of saturation during the peak hours and fatal traffic accidents are of daily occurrence. In 1956, over 40,000 persons lost their lives in street traffic in the nation, and 1200 were killed during the Christmas-New Years holidays. Some railroads have operated an entire year without a single fatality to its passengers.

Transportation by highway and air essentially lacks the capacity in terms of people or freight per unit of operation, which can be attained by rail transportation.

### Recommendations

It is recommended that consideration be given to extending the main line for commuter service eastward from the Third Street Station and northward under Rincon Hill via First Street to connect with the downtown subway system and the trans-Bay tubes both to Oakland and to Marin County. The main line route through South San Francisco and Brisbane is 1.4 miles shorter than the route through Colma. Four tracks would be available north of Burlingame; two via Colma and the Twin Peaks Tunnel, and two via the main line. By providing alternative rapid transit routes, through operation and an elongated terminal under Market Street would be provided. Under the Optimum Plan there would be stops at Powell Street and at the Civic Center, with provision for transfering to the local system. By utilizing the Twin Peaks Tunnel route for the first step, it will have about two miles of construction cost without adding to the length of route. As San Francisco owns most of the right-of-way as far as Burlingame, very little new money will be required for real estate. One additional track would be required south of Burlingame to California Avenue on the main line, with provision for reversible operation and automatic control where needed.

The following is a quotation from a recent address on "The Railroad Role in Community Planning" by B. F. Biaggini: "The challenge is to provide a system which will attract the greatest possible usage in the most economical way — not just now, but for the years ahead."

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## SWISS PEASANT ART SHOWN AT M. H. deYOUNG MUSEUM

An exhibition of Swiss Peasant Art consisting of primitive paintings portraying the life of the Swiss dairy farmers and cowherds is presently being exhibited at the M. H. deYoung Memorial Museum, Golden Gate Park in San Francisco. The exhibition includes wood furniture and other handwrought and decorated implements in daily use on the farms.

This form of painting as distinguished from purely decorative work developed toward the end of the 19th century in northern Switzerland in the Canton of Appenzell, and in the neighboring Toggenburg valley in the Canton of St. Gall, both dairy farming regions.

The themes relate mainly to the festive and ceremonial spring ascent and autumn descent of the herd to the mountain pastures, occasions for which the cowherds wear traditional holiday costumes and the cows are adorned with embroidered collars and special bells. Villages, towns, landscapes, country scenes, and portraits are rendered with great attention to detail and employment of bright colors in a primitive style reminiscent of Grandma Moses' portrayal of country life in upper New York State.

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## WOMEN'S ARCHITECTURAL LEAGUE ELECT NEW STATE OFFICERS

New officers of the W.A.L. State Central Committee, chosen recently during the California Council of Architects, A.I.A.'s annual convention in Coronado, include Mrs. William Koblik, Central Valley Chapter, Chairman; Mrs. Joseph Jozens, Central Valley Chapter, Recorder, and Mrs. Everett Parks, Orange County Chapter, Parliamentarian.

## SANTA CLARA AND SANTA CRUZ COUNTIES CHAPTER AIA

William L. Higgins, San Jose, was elected President at the Annual Meeting held in San Jose the latter part of November. Elected to serve with him during the ensuing year were: Paul J. Huston of Palo Alto, Vice-President; William H. Daseking, Menlo Park, Treasurer; Edward N. Chamberlain, San Jose, Secretary, and Ed Myers, Director.

"What Should Your Chapter Be Doing To and For You" was the subject of a panel discussion led by Birge Clark as Moderator and Chester Root, Al Walter, Lynn Duckering, Bill Daseking and Ellis Jacobs, participants.

## WILLIAM CLEMENT AMBROSE RETIRES FROM PRACTICE

William Clement Ambrose, a partner in the firm of Ambrose and Spencer, AIA, Architects, San Francisco, since 1943, has announced his retirement from

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Clay T. Snider, President, Minneapolis-Honeywell Regulator Co., LA.; E. J. Lawson, Vice-President, Aluminum Company of America, L.A.; E. Phil Filsinger, Secretary, Gladding, McBean & Co., L.A.; William G. Aspy, Treasurer, H. H. Robertson Co., L.A.; Henry E. North, Jr., National Director, Arcadia Metal Products, L.A.; Office of the Secy., 2901 Los Feliz Blvd.

Producers' Council—Northern California Chapter:

John J. O'Connor, President, H. H. Robertson Co.; Stanley L. Basterash, Vice-President, Western Asbestos Co.; Howard W. DeWeese, Treasurer, Pomona Tile Mfg. Co.; Robert W. Harrington, Secretary, Clay Brick & Tile Ass'n. Office of Sec'y, 55 New Montgomery St., San Francisco 5.

Producers' Council—San Diego Chapter:

Eugene E. Bean, President, Fenestra Inc.; ames I. Hayes, Vice-President, Westinghouse Electric Co.; E. K. Shelby, Secretary, The Celotex Corp. (El Cajon); Joseph C. Langley, Treasurer, Republic Steel Corp'n, Truscon Steel Div. (Lemon Grove). Office of Secty., 1832 Wedgemere Rd., El Cajon.

Construction Specifications Institute—Los Angeles:

R. R. Coghlan, Jr., President; George Lamb, Vice-President; E. Phil Filsinger, Secretary; Harry L. Miller, Treasurer; Directors Harold Keller, Jack Whiteside, Walter Hagedohm, Raymond Whalley, Charles Field Wetherbee, Martin A. Hegsted. Advisory Member, D. Stewart Kerr. Office of Secty., 2901 Los Feliz Blvd., L.A.

Construction Specifications Institute—San Francisco:

Henry C. Collins, President; Leonard M. Tivel, Vice-President; Leonard P. Grover, Treasurer; Marvin E. Hirchert, Secretary. Office of Secty., 585 Whitewood Drive, San Rafael.

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the active practice of architecture.

The firm will continue under the name of Spencer and Lee, with Eldridge T. Spencer and Alton S. Lee as participating partners. Mr. Ambrose will continue his activities as a Director of the Northern California Chapter AIA for the balance of his term, 1957-58.

## ARCHITECT PAUL O. DAVIS APPOINTED TO STATE BOARD

Paul O. Davis, Corona del Mar architect, and prominent in western architectural activities, has been appointed a member of the California State Board of Architectural Examiners, succeeding Earl T. Heitschmidt of Los Angeles, resigned.

Announcement of the appointment was made by Governor Goodwin J. Knight.

Davis, a native of Santa Ana, California, received his certificate in aeronautical engineering from the Massachusetts Institute of Technology in 1917, and his B. S. degree in architecture from the University of Michigan in 1920. He was licensed to practice architecture in California in 1923 and entered private practice in 1938.

He is a member of The American Institute of Architects and served as director of the Southern California Chapter AIA from 1949 to 1952. He was president of the Orange County Chapter AIA in 1953. Term on the State Board ends January 15, 1958.


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# WITH THE ENGINEERS

Structural Engineers Association of California

Henry M. Layne, President; Howard A. Schirmer, Vice-President; H. L. Manley, Secy.-Treas. Directors—Chas. De Maria, Wesley T. Hayes, Henry M. Layne, H. L. Manle, J. G. Middleton, J. F. Meehan, Clarence E. Rinne, A. A. Sauer, Howard A. Schirmer, and William T. Wheeler. Office of Secty., 9020 Balcom Ave., Northridge, Calif.

Structural Engineers Association of Northern California

Henry J. Degenkolb, President; J. Albert Paquette, Vice-President; Donald M. Teixeira, Secretary; Samuel H. Clark, Assistant Secretary; William K. Cloud, Treasurer. Directors, Charles D. DeMaria, Howard A. Schirmer, Harold S. Kellam, John M. Sardis, James L. Stratta, Paquette and Dengenkolb. Office of Sect., 417 Market St., San Francisco.

Structural Engineers Association of Central California

J. F. Meehan, President (Sacramento); A. L. Brinckman, Vice-President (Sacramento); W. F. Pond, Secy.-Treas. Directors: A. L. Brinckman, J. J. Doody, H. C. Green, J. F. Meehan, E. F. Zanoni. Office of Secy., 7045 Cromwell Way, Sacramento.

Structural Engineers Association of Southern California

R. W. Binder, President; Joseph Sheffet, Vice President; Albin W. Johnson, Secy.-Treas.; Directors Wm. A. Jensen, Jack N. Sparling, Roy Johnston and David Wilson. Office of Secy., 2808 W. Temple St., Los Angeles 26. DUnkirk 5-4424.

## AMERICAN SOCIETY OF CIVIL ENGINEERS—San Francisco

"Engineers, Unions, and ASCE" was the theme of the December meeting in the Engineers Club, with presentation of a Committee Report by Carl Monismith and Robert Darragh. Monismith, chairman of a special committee of the Junior Forum, is an Assistant Professor of Civil Engineering at the University of California, while Darragh is a staff engineer with Dames and Moore and president of the Junior Member Forum. The Report and program relates to a questionnaire circulated to Junior Members, interviews with employers and extensive research by the committee.

Life Member certificates on behalf of the National Society were presented to: Edwin Earl Blackie, Consulting Engineer; Revoe Carlyle Briggs; Theodore Parker Dresser, Jr.; Victor Arthur Endersby; Mark Marion Falk; Albert Lossen Lane; Leroy Everett Loxley; Neil Stuart McNamara; Hal S. Sams, and Otis William Swainson.

Recent new members include: Robert G. Aitchison, Lafayette; John W. Bell, Ronald A. Boesel, Jerald P. Clark, Robert H. Griffin, A. W. Finne, Michael H. Keyak and Cecil E. Pearce, San Francisco; Hollis M. Black, Jr., Kazuyoshi Kawata, Edgar Lee and Hugh D. McNiven, Berkeley; Robert S. Craig, Burlingame; L. P. Dunlap, San Mateo; Richard J. Huyck Jr., Kentfield; Leon D. Luck, Stanford; Robert R. Matheu and Frederick Willsea, Palo Alto; W. T. McCalla, Ventura; M. F. Tiemens, San Pablo and Leonard W. Winston, Mt. View.

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## FEMINEERS OF SAN FRANCISCO

Mrs. Burr H. Randolph was elected president of the Femineers to serve for the 1958 term. Elected to serve with her were: Mrs. J. A. Paquette, vice president; Mrs. James M. Smith, Recording Secretary; Mrs. Donald H. Moyer, Corresponding Secretary; and Mrs. Herman V. Yank, Treasurer. Named as directors were Mrs. Cedric H. Anderson and Mrs. Fred Nicholson.

The annual Christmas Party was observed this year at the California Golf Club, with the theme being "Christmas Belles" and highlighted by the "Chapeau Show" of hats designed with decorations in the holiday mood. Mrs. William W. Brewer and Mrs. Earl Paddock served as co-chairmen of the event with hostesses being Mesdames Thomas W. Power, Will Adrian, George R. Burr, Leslie W. Graham, A. C. Horner, Raymond Lundgren, George R. Maurer, Louis Riggs, Alfred M. Sperry, Bernard A. Vallerga and T. D. Wosser, Jr.

American Society of Civil Engineers
Los Angeles Section
George E. Brandow, President; Ernest Maag, Vice-President; L. LeRoy Crandall, Vice-President; J. E. McKee, Secretary; Alfred E. Waters, Treasurer. Office of Secy., California Institute of Technology, Pasadena, Calif.

Sec.y-Treas.; 4865 Park Ave., Riverside. Ventura-Santa Barbara Counties Branch, Robert L. Ryan, Pres.; Richard E. Burnett, Vice-President; George Conahey, Secy.-Treas., 649 Doris St., Oxnard.

American Society of Civil Engineers
San Francisco Section
H. C. Medbery, President; William W. Moore, 1st Vice-President; Harmer E. Davis, 2nd Vice-President; B. A. Vallerga, Secretary; Ben C. Gerwick, Jr., Treasurer. Office of Secty.

San Jose Branch
Stanley J. Kocal, President; Charles L. Coburn, Vice-President; Myron M. Jacobs, Secty. and Treas.

Structural Engineers Association of Oregon
Sully A. Ross, President; Francis E. Honey, Vice-President; Delmar L. McConnell, Secy.-Treas. Directors: Robert M. Bonney, George A. Guins, Francis E. Honey, Evan Kennedy, Delmar L. McConnell. Office of Secy., 717 Board of Trade Bldg., Portland 4, Oregon.

Society of American Military Engineers
Puget Sound Engineering Council (Washington)
R. E. Kister, A. I. E. E., Chairman; E. R. McMillan, A. S. C. E., Vice Chairman; L. B. Cooper, A. S. M. E., Secretary; A. E. Nickerson, I. E. S., Treasurer; Offices, L. B. Cooper, c/o University of Washington, Seattle 5, Washington.

American Society Testing Materials
Northern California District
H. P. Hoopes, Chairman; P. E. McCoy, Vice-Chairman; R. W. Harrington, Secretary, Office of Secy , c/o Clay Brick & Tile Assn, 55 New Montgomery St, San Francisco 5.

Society of American Military Engineers—San Francisco Post
Col. Edwin M. Eads, USAF, President; C. R. Graff, 1st Vice-President; Col. Seymore A. Potter, Jr., 2nd Vice-President; Roger L. Cairns, Secretary; Donald C. Bentley, Treasurer. Directors—Col. John S. Hartnett, USA; Donald McCall; Capt. A. P. Gardiner, USN; C. Grant Austin, and Rex A. Daddisman. Office Secy. USAF, U.S. Appraisers Bldg, 630 Sansome St., San Francisco.

## AMERICAN SOCIETY OF MILITARY ENGINEERS—San Francisco Post

Commander Charles J. Merdinger, Officer in Charge, U.S. Naval Civil Engineering Research and Evaluation Laboratory, Port Hueneme, California, was the principal speaker at the December meeting held in Officers Club, Presidio of San Francisco, taking as his subject. "Different Approach to Engineering Education."

A brief movie "Life of an Undergraduate at Oxford" was also shown.

Recent new members include: Harold Stockstad, Thomas Whitson, John M. Daugherty, Lt. Col. M. C. Tadlock, Edwin C. Duerr, George Y. Tashiro, Oval H. Robinson, Cliff Kealey, and Endel Talpt.

## STRUCTURAL ENGINEERS ASSOCIATION OF SOUTHERN CALIFORNIA

The Structural Engineers Association of Southern California awarded Murray Erick an Honorary Award at a dinner meeting Wednesday evening, December 4.

Mr. Erick has been practicing structural engineering since 1923. He has served as president of the SEAOSC and also as president of the SEAOC, the statewide organization of structural engineers. The General Petroleum Building and the Prudential Building are two recent Los Angeles structures whose engineering design originated in Mr. Erick's office.

Following the award, Mr. Eli Czerniak of The Fluor Corporation, who has his master's degree in structural engineering from Columbia University, spoke to the assembled engineers on structural analysis with the aid of computers.

The speaker described the electronic digital computers owned by The Fluor Corporation and stated the approximate cost as $250,000. This cost will probably prohibit existence in many offices, but rentals at approximately six dollars per hour are available. The machine is extremely fast and, if data such as equations and loadings are previously properly prepared, a complicated rigid frame can be computed in fifteen minutes.

The entire success of the operation depends on the assumptions and physical data fed into the computer. If this is correct, the machine performs all the necessary arithmetic in a very accurate and speedy manner. In the way of magnitude, the Fluor machine can handle up to 54 equations at one operation.

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## ART

(From Page 3)

urday and Sunday at 3 p.m. The Educational activities including Art Classes for Children and Junior High School students will close in mid December and will be resumed after the first of the year.

### SOUTHERN CALIFORNIA ARTIST EXHIBITS AT M. H. deYOUNG

Elizabeth Duquette, talented Southern California artist termed a "poetess with paint", is exhibiting about 75 gouache paintings this month at the M. H. deYoung Memorial Museum, Golden Gate Park, San Francisco.

Born in Los Angeles, where she now resides and maintains a studio in Beverly Hills with her husband, the internationally known decorator, Tony Duquette, much of her childhood was spent in the Oregon woods which has deeply influenced her painting.

### ASSOCIATED STUDENT BODY ANNUAL ART EXHIBITION

The Associated Student Body of the California School of Fine Arts, an accredited college, 800 Chestnut Street, San Francisco, presented its First Annual Art Exhibition early in December.

The event was sponsored by the students including the jury and judging.

## WESTERN CHURCH DESIGN

(From Page 19)

building of beauty, serenity, friendliness, and one which has a definite tone of welcome.

Materials are pretty much the same—brick, glass, plastic, stone, and the new and increasingly popular engineered wood in its wonderful glu-lam forms—but no two architects ever see the same problem in the same light, nor do they seem ever to visualize a specific material as having identical opportunity. That, therefore, is the charm and excitement of looking over the achitect's shoulder while he is at work at his drafting board and seeing the wonderful ideas for new forms and new structures which take shape under his magic direction.

Church design has come far in the past decade or two, released it seems, from some of the self-imposed restrictions of the past. The sharp break with tradition is certainly here, but it is no violent thing, as the abrupt change in residential design when, for a time, we went from the peaked and hipped roof to the flat cube style. Rather, this evolution in church design has been pleasing. There can be no quarrel today with some of the exquisite church structures designed by our architects which retain little if any of the traditions of the past, for each in his own way is seeking a form of expression to create for man an organization of space within these structures to serve the loftiest purposes.

### ARCHITECT IN NEW LOCATION

Announcement has been made of the opening of offices of George A. Swallow, A.I.A., Architect and W. J. Hubbard at 301 Forty-First Street in Richmond, California. Telephone is the same as heretofore BEacon 2-9166.

### ENGINEERS MOVE INTO NEW OFFICES

The engineering firm of Huber and Knapik, Civil Engineers, has announced the removal of offices to a new location at Fifty-Seven Post Street, San Francisco. Telephone number is unchanged SUtter 1-4106.

The firm is composed of Walter L. Huber, member of The American Society of Civil Engineers, and Edward M. Knapik, also a member of The American Society of Civil Engineers.

### JOHN H. WHITE ELECTED HEATING COUNCIL PREXY

John H. White, president of Taco Heaters, Inc., Cranston, R. I., has been elected president and a director of the Better Heating-Cooling Council for 1957-58, succeeding John E. Reed of Westfield, Mass.

The Council is a 40-member nationwide educational and promotional association dedicated to increased usage and acceptance of hydronics—the science of heating and cooling with liquids.

Other officers chosen at the Council's annual meeting included Alfred Whittell, Jr., Raypak Company of El Monte, California.

### KARL W. MATTHES APPOINTED STAFF ENGINEER

Karl W. Matthes has been appointed divisional staff engineer for Kaiser Steel Corporation's general planning division, according to B. E. Etcheverry, director of general planning for the firm.

In his new position, Matthes will assist the director in reviewing and evaluating corporate capital expenditures and in developing coordinated capital expenditure programs.

### KUDROFF JOINS LOS ANGELES FIRM

Marvin J. Kudroff has been appointed Director of Engineering for the Los Angeles architectural and engineering firm of Daniel, Mann, Johnson & Mendenhall, according to a recent announcement by Stanley A. Moe, General Manager.

Kudroff, an Associate of the firm, has been serving as Chief Structural Engineer, and has served as Project Manager for many of the firm's major projects. In his new position he will have the responsibility of supervising the Engineering Division including all types of engineering, mechanical, process piping, electrical and civil, and construction supervision.

### BERGREN STEEL CORP. OPENS NEW OAKLAND PLANT

The Bergren Steel Corp., a new organization of steel distributors, has been formed with general offices and plant located at 841-73rd Avenue in Oakland.

E. G. Bergren, formerly with Columbia Steel Company, is president of the firm, which will specialize in steel plate and plate burning. Bergren was also with Taylor and Spotswood and Baker and Hamilton, and is a past president of the Northern California Division, American Steel Warehouse Association.

### OAKLAND FIRM OF ARCHITECTS EXPANDS

George P. Simonds, AIA, of the Oakland architectural firm of Anderson & Simonds, Architects, recently announced that Alvin Dusel, AIA, and Robert Campini, AIA, have become associated in the firm and that the name has been changed to Anderson, Simonds, Dusel and Campini, Architects, A.I.A.

Alvin Dusel is a graduate of Stanford University, College of Engineering, and Robert W. Campini is a graduate of the University of California, College of Architecture.

Offices of the firm, for the general practice of architecture, will be maintained at 2800 Park Boulevard, Oakland.

### NEW BRANCH BANK PLANNED FOR ORINDA

Charles P. Partridge, president of the Central Valley National Bank of Oakland, recently announced the acquisition of a site and construction in the near future of a new Branch Bank building in Orinda.

The proposed building site is 95 x 100 ft. and the building will contain 4,573 sq. ft. to provide facilities for banking, a real estate office, and several commercial stores. Estimated cost is $100,000.

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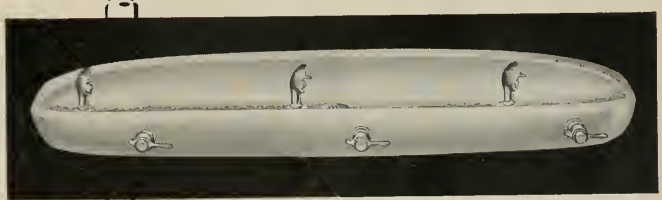

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## "BENTS" IN CONSTRUCTION
### Kern County Community

(From Page 4)

with octapus-like, hydraulic, vacuum cups, and raise it. A workman riding high on the slab, looked as if he were piloting a flying carpet with the greatest of ease, to slide it into the notches of the structural **bents,** there to be welded to the frame by metal connectors. The roof, having been placed, the masons took-over and laid-up the walls of light-weight-aggregate, concrete blocks, properly reinforced with vertical rods.

Bakersfield and Kern County is taking no chances in its public building construction. They are being built with an eye to resisting lateral stresses. The tilt-up and the left-up slabs of reinforced concrete, poured flat, hoisted into place and tied to a rigid structure, are popular procedures by which it is hoped to keep costs down and building intact when the earth gets to acting up.

Speaking of the selection of the **bent** type of design, the architect states that it is easy to assemble and economical. It is C. Cullimore, Jr., A.I.A. of the architectural firm of Kenney and Cullimore, of Bakersfield, who dreamed-up the reinforced concrete **bents** that form the skeleton of the modern dinasaur while the concrete-block masons encased it to assume its aspects of contemporary appeal.

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## MOROCCAN ARTS AND CRAFTS EXHIBITION AT SF MUSEUM

An exhibition of contemporary Moroccan arts and crafts is currently on view at the San Francisco Museum of Art, Civic Center, representing a rich and varied display of artistic products from the new nation.

There are colorful rugs of different types, ceramic dishes, bowls and jugs decorated with bright geometrical designs, gold embossed leather, and trays and jugs of metal inlay, and folk sculpture.

Handsome photographs of daily life in the cities and countryside of Morocco complete the exhibition.

## CIVIL ENGINEERS ANNOUNCE AWARDS

For their outstanding achievement in Civil Engineering, the American Society of Civil Engineers has announced the award of a Research Prize to Dr. Mikael P. J. B. Hvorslev, consultant to the Waterways Experiment Station, U.S. Corps of Engineers, Vicksburg, Miss.; Dr. Bruce Johnston, Department of Civil Engineering, University of Michigan, Ann Arbor; and Dr. Lorenz G. Straub, Director, St. Anthony Falls Hydraulic Laboratory, Head of the Department of Civil Engineering, University of Minnesota, Minneapolis. Formal presentation will be made at the Society's national convention in Chicago next February.

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# BOOK REVIEWS
## PAMPHLETS AND CATALOGUES

**FABRICATING HOUSES FROM COMPONENT PARTS. By Norman Cherner. Reinhold Publishing Corp., 430 Park Ave., New York 22. 208 pages. Price $7.95.**

The author has long been interested in the production of minimum cost houses and this book presents the final results of extensive research into parts and structural systems. Five basic types of structural systems are covered: Panel, bents, girder, masonry and foundation, and Quonset, and by using these materials and methods has designed fifteen expansible houses. The author's prime concern has been to instill a spirit and an approach toward making a truly inexpensive house a reality.

**ACOUSTICS For The Architect. By Harold Burris-Meyer and Lewis Goodfriend. Reinhold Publishing Corp., 430 Park Ave., New York 22. 126 pages. Price $10.00.**

Acoustics constitute one of the essential determining factors in all architectural projects where comfort, auditory communication, or a number of special requirements must be satisfied. The authors have provided the architect with the tools requisite to handle acoustics and noise control in the structures he designs without requiring him to examine the complex physics fundamental to the science of acoustics, Charts, tables, and chick list, containing new materials presented for the first time, simplify the necessary acoustical design calculations. The book discusses the method by which acoustics is integrated into architectural design; various architectural elements and their acoustical properties; and sound systems and other electronic devices, giving complete design procedures. The book meets the need of architects, engineers, builders, contractors, students and anyone concerned with the planning of building.

**THE CASTING OF STEEL. By W. C. Newell. Philosophical Library Inc., 15 E. 40th St., New York 16. 598 pages. Price $27.50.**

Purpose of the book is to provide steel founders and engineers with a reliable guide upon all technical aspects of the production of steel castings. Although the operation of casting steel to intricate and accurate shapes is essentially a creative one, the demand for increased output has led, in the steel foundry industry, to the greater application of scientific knowledge and research. As a result, techniques employed in the foundry are steadily changing and improving. The closest possible association between the practical man and his counterpart in the laboratory is now essential and this book hopes to assist in their mutual understanding by helping the practical man to see his work in a better perspective, and the more theoretically minded to have his "feet kept on the ground." Many testing and inspection phases are covered, and the book should be of value to all classes of skilled foundry workers, engineers responsible for designs incorporating steel castings, designers of steel foundry equipment, engineering inspectors who have to deal with the specifications and inspection of steel castings, and to metallurgical students wishing to become better informed, or to specialize in foundry work.

## NEW CATALOGUES AVAILABLE

*Architects, Engineers, Contractors, Planning Commission members—the catalogues, folders, new building products material, etc., described below may be obtained by directing your request to the name and address given in each item.*

**Engineering counsel on elevators**—A service to the Architect. Newly published brochure discusses the role of the consulting engineer on vertical transportation problems; elevators, escalators and other forms of vertical transport; procedures, modernization, traffic, specifications. Free copy write Charles W. Lerch & Associates, Board of Trade Bldg., Chicago 4, Ill.

**Recommended practice for winter concreting.** A handy 8-page brochure prepared by the Calcium Chloride Institute describes in brief form the recommended practices for winter concreting which have been adopted by the American Concrete Institute; of particular interest are the 8 charts which


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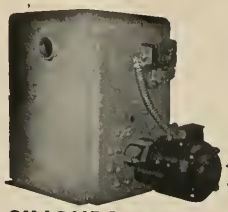

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**MAIN OFFICE — SANTA CLARA**


show the comparative compressive strength of concrete made with Type 1 and Type 3 cements with zero and 2 per cent calcium chloride by weight of cement; temperature comparisons are made at 25, 40, 55, and 73 F. Free copy write DEPT-A&E, Calcium Chloride Institute, 909 Ring Bldg., Washington 6, D. C.

**Underwater swimming pool light.** Four-page, 2-color bulletin describes new underwater swimming pool light; as well as underwater floodlights for fountains, cascades, waterfalls and lily pools; for use in concrete, tile, metal, fiberglas, or plastic; available with auxiliary color lenses for special effects; lists accessories, installation and specification information. Free copy write DEPT-A&E, Revere Electric Mfg. Co., 6009 Broadway, Chicago 40, Ill.

**Aluminum sliding glass doors.** Colorful 8-page brochure includes specifications, ¼ scale installation details for frame siding, concrete block and brick veneer construction, ½ scale plans and elevations and ¼ scale scruptural details; as well as table of standard stock sizes; designed to aid architect in selection and planning of doors and windows; illustrates outstanding features of each product. Copy free, write DEPT-A&E, Nudor, 7326 Fulton Ave., North Hollywood, Calif.

**Store lighting fixtures.** Catalog gives complete details on store lighting fixtures designed to stimulate the selling of merchandise; features an array of incandescent and fluorescent designs with variations of size and mounting in any model resulting in the flexibility of custom lighting; includes conical display directors, display cylinders, bowls, spheres, cornices and perimeter fixtures, fittings and dressing room models, mirror lights, strips, showcase reflectors, showcase valances and T-rail reflectors. For copy write DEPT-A&E, Peerless Electric Co., 576 Folsom St., San Francisco.

**Handbook of Millwork Grades.** New, 1957 Edition is intended particularly for field inspectors and the architectural profession as a concise guide to new grade rules and requirements as established in the 1957 edition of the Manual of Millwork; rules are clear, simple, and readily applicable; book applies only to work which has been specified under the 1957 edition of the Manual of Millwork, to which reference should be made for complete information. Copy free write DEPT-A&E, Woodwork Institute of California, 1833 Broadway, Fresno, California.

**Factory made stainless steel components.** New 44-page illustrated reference manual (AIA File No. 15-H-1) describes wide variety of factory-made stainless steel components, and lists manufacturer; many photographs, detail drawings, profiles and exploded views showing product in use; includes 3½ page listing of component type sources. Free copy write DEPT-A&E, Committee of Stainless Steel Producers, American Iron and Steel Institute, 150 E. 42nd St., New York 17.

**Stainless fasteners—stock list.** A new 52-page, 2-color Stock List and Data Book has just been issued: most comprehensive volume, includes illustrations, thread and design specifications, and availability in a variety of corrosion-resistant metals of forty basic fastening devices—screws, bolts, nuts, washers, rivets, etc.; also includes engineering data relating to composition, properties, applications, and weights of stainless steels. Free copy write DEPT-A&E, Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, Long Island, N. Y.


# ARCHITECTS & ENGINEERS...

THE SUPPLIERS QUANTITY SURVEY SERVICE—a new LeRoy service—furnishes quantity surveys to suppliers of construction products that enable them to submit bids on your projects WITHOUT the need of your plans.

This valuable service reduces estimating expenses of suppliers, increases their bidding facilities, and reduces the number—and cost—of your plans needed by suppliers.

Help promote these benefits by letting us have an early set of plans for each of your projects.

We need your plans only a couple of days, then promptly returned.

## LeROY CONSTRUCTION SERVICES

768 BRANNAN • SAN FRANCISCO, 3 • UNderhill 1-2483

# ESTIMATOR'S GUIDE

## BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY LeROY CONSTRUCTION SERVICES. 4% SALES TAX ON ALL MATERIALS BUT NOT LABOR.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage and labor travel time must be added in figuring country work.

**BONDS**—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

### BRICKWORK—MASONRY—

**BUILDING BRICK—estimated cost per sq. ft.**

| WALL | BRICK | AVERAGE |
|---|---|---|
| 8" | Jumbo | $2.30 |
| 8" | Norman | 2.40 |
| 10" | Standard | 2.40 |
| 12" | Jumbo | 2.55 |
| 14" | Standard | 2.60 |

**FACE BRICK—estimated cost per sq. ft.**

| WALL | BRICK | AVERAGE |
|---|---|---|
| 8" | Jumbo | $2.55 |
| 8" | Brick Block | 2.30 |
| 10" | Standard | 2.90 |
| 10" | Norman | 2.80 |
| 10" | Norman | 3.05 |
| 14" | Norman | |

Common Brick—Per 1 M laid—$175.00 up (according to class of work).
Face Brick—Per 1 M laid—$265.00 and up (according to class of work).
Brick Steps—$2.75 per lin. ft. & up.

### BRICK VENEER

**BUILDING BRICK—estimated cost per sq. ft.**

| WALL | BRICK | AVERAGE |
|---|---|---|
| 3" | Jumbo | $1.15 |
| 3" | Norman | 1.25 |
| 4" | Standard | 1.40 |

**FACE BRICK—estimated cost per sq. ft.**

| WALL | BRICK | AVERAGE |
|---|---|---|
| 3" | Jumbo | $1.35 |
| 4" | Standard | 1.60 |
| 4" | Norman | 1.50 |
| 4" | Roman | 1.80 |

Common Brick Veneer on Frame Bldgs.—Approx. $1.75 and up—(according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.25 and up (according to class of work).
"Bricketts" (Brick Veneer) per M, f.o.b. Niles, $50.00.

**Glazed Structural Units—Walls Erected—**

| | |
|---|---|
| Clear Glazed— | |
| 2 x 6 12 Furring | $1.95 per sq. ft. |
| 4 x 6 x 12 Partition | 2.25 per sq. ft. |
| 4 x 6 x 12 Double Faced Partition | 2.50 per sq. ft. |
| For colored glaze add | .30 per sq. ft. |

Mantel Fire Brick $150.00 per M—F.O.B. Pittsburgh.
Fire Brick—2½"x9x4½—$110.00.
Cartage—Approx. $10.00 per M.
Paving—$75.00.

| | |
|---|---|
| **Building Tile—** | |
| 8x5½x12-inches, per M | $159.40 |
| 6x5½x12-inches, per M | 124.00 |
| 4x5½x12-inches, per M | 96.90 |
| **Hollow Tile—** | |
| 12x12x3-inches, per M | 156.85 |
| 12x12x4-inches, per M | 177.10 |
| 12x12x6-inches, per M | 235.30 |

F.O.B. Plant

### BUILDING PAPER & FELTS—

| | |
|---|---|
| 1 ply per 1000 ft. roll | $5.30 |
| 2 ply per 1000 ft. roll | 7.80 |
| 3 ply per 1000 ft. roll | 9.70 |
| Brownskin, Standard 500 ft. roll | 6.85 |
| Sisalkraft, reinforced, 500 ft. roll | 8.50 |
| **Sheathing Papers—** | |
| Asphalt sheathing, 15-lb. roll | $2.70 |
| 30-lb. roll | 3.70 |
| Dampcourse, 216-ft. roll | 2.95 |
| Blue Plasterboard, 60-lb. roll | 5.10 |
| **Felt Papers—** | |
| Deadening felt, ¾-lb., 50-ft. roll | $4.30 |
| Deadening felt, 1-lb | 5.05 |
| Asphalt roofing, 15-lbs | 2.70 |
| Asphalt roofing, 30-lbs | 3.70 |
| **Roofing Papers—** | |
| Standard Grade, 108-ft. roll, Light | $2.50 |
| Smooth Surface, Medium | 2.90 |
| Heavy | 3.40 |
| M. S. Extra Heavy | 3.95 |

### CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

| | Bunker per ton | Del'd per ton |
|---|---|---|
| Gravel, all sizes | $3.00 | $3.75 |
| Top Sand | 3.20 | 3.95 |
| Concrete Mix | 3.10 | 3.85 |
| Crushed Rock, ¼" to ¾" | 3.20 | 3.95 |
| Crushed Rock, ¾" to 1½" | 3.20 | 3.95 |
| Roofing Gravel | 3.15 | 4.00 |
| Sand— | | |
| Lapis (Nos. 2 &4) | 3.95 | 4.70 |
| Olympia (Nos. 1 & 2) | 3.50 | 4.00 |

**Cement—**

Common (all brands, paper sacks). Per Sack, small quantity (paper) $1.30
Carload lots, in bulk, per bbl 4.14
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots, $5.20 per bbl. f.o.b. warehouse or $5.60 delivered.
Cash discount on L.C.L 2%
Trinity White, Meduse White — 1 to 100 sacks, $4.00 sack, warehouse or delivered.

### CONCRETE READY-MIX—

Delivered in S-yd. loads: 6 sk. in bulk $14.80
Curing Compound, clear, drums, per gal. .90

### CONCRETE BLOCKS—

| | Haydite | Basalt |
|---|---|---|
| 4x8x16-inches, each | $ .22 | $ .22 |
| 6x8x16-inches, each | .27½ | .27½ |
| 8x8x16-inches, each | .32 | .32 |
| 12x8x16-inches, each | .46 | .46½ |
| 12x8x24-inches, each | .... | .67 |

| Aggregates—Haydite or Besalite | Plant | |
|---|---|---|
| ¾-inch to ⅜-inch, per cu. yd | $5.85 | $7.75 |
| ⅜-inch to ⅛-inch, per cu. yd | 5.85 | 7.75 |
| No. 6 to 0-inch, per cu. yd | 5.85 | 7.75 |

### DAMPPROOFING and Waterproofing—

Two-coat work, $9.00 per square and up.
Membrane waterproofing—4 layers of saturated felt, $13.00 per square and up.
Hot coating work, $5.50 per square & up.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricosal concrete waterproofing, 60c a cubic yd. and up.
Anhi Hydro, 50 gal., $2.20.

### ELECTRIC WIRING—

$20 to $25 per outlet for conduit work (including switches) $18-20. Knob and tube average $7.00 to 9.00 per outlet.

### ELEVATORS—

Prices vary according to capacity, spaed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $9,500.00.

### EXCAVATION—

Sand, $1.25, clay or shale, $2.00 per yard. Trucks, $3S to $5S per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

### FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $275 installed on new buildings; $325 on old buildings.

### FLOORS—

Asphalt Tile, ⅛ in. gauge 25c to 35c per sq. ft.
Composition Floors, such as Magnesite, 50c-$1.25 per sq. ft.
Linoleum, standard gauge, $3.75 sq. yd. & up laid.
Mastipave—$1.90 per sq. yd.
Battleship Linoleum—$6.00 sq. yd. & up laid.
Terazzo Floors—$2.50 per sq. ft.
Terazzo Steps—$3.75 per lin. ft.
Mastic Wear Coat—according to type—45c per sq. ft. and up.

**Hardwood Flooring—**

**Oak Flooring—T & G—Unfin.—**

| | ⅜x2¼ | ½x2 | ⅜x2 | ¼x2 |
|---|---|---|---|---|
| Clear Qtd., White | $425 | $405 | $ | $ |
| Clear Qtd., Red | 405 | 380 | | |
| Select Qtd., Red or White | 355 | 340 | | |
| Clear Pln., Red or White | 355 | 340 | 335 | 315 |
| Select Pln., Red or White | 340 | 330 | 325 | 300 |
| #1 Common, red or White | 315 | 310 | 305 | 280 |
| #2 Common, Red or White | 305 | | | |

**Prefinished Oak Flooring—**

| | Prime | Standard |
|---|---|---|
| ½ x 2 | $369.00 | $359.00 |
| ½ x 2½ | 380.00 | 370.00 |
| ½ x 2¼ | 390.00 | 381.00 |
| ⅜ x 2¾ | 375.00 | 355.00 |
| ⅜ x 3¼ | 395.00 | 375.00 |
| ⅜ x 2¼ & 3¼ Ranch Plank | | 415.00 |

**Unfinished Maple Flooring—**

| | |
|---|---|
| ⅜ x 2¼ First Grade | $390.00 |
| ⅜ x 2¼ 2nd Grade | 365.00 |
| ⅜ x 2¼ 2nd & Btr. Grade | 375.00 |
| ⅜ x 2¼ 3rd Grade | 240.00 |
| ⅜ x 3¼ 3rd & Btr. Jtd. EM | 380.00 |
| ⅜ x 3½ 2nd & Btr. Jtd. EM | 390.00 |
| 33/32 x 2¼ First Grade | 400.00 |
| 33/32 x 2¼ 2nd Grade | 360.00 |
| 33/32 x 2¼ 3rd Grade | 320.00 |

Floor Layer Wage $2.83 per hr.

### GLASS—

| | |
|---|---|
| Single Strength Window Glass | $ .30 per □ ft |
| Single Strength Window Glass | $ .30 per □ ft. |
| Double Strength Window Glass | .60 per □ ft. |
| Plate Glass, ¼ polished to 75 | 1.80 per □ ft. |
| 75 to 100 | 2.10 per □ ft. |
| ¼ in. Polished Wire Plate Glass | 2.70 per □ ft. |
| ¼ in. Rgh. Wire Glass | .80 per □ ft |
| ⅛ in. Obscure Glass | .55 per □ ft. |
| ⅛ in. Obscure Glass | .70 per □ ft. |
| ⅛ in. Heat Absorbing Obscure | .54 per □ ft. |
| ⅛ in. Heat Aborbing Wire | .72 per □ ft. |
| ⅛ in. Ribbed | .55 per □ ft. |
| ⅛ in. Ribbed | .75 per □ ft. |
| ⅛ in. Rough | .55 per □ ft. |
| ⅛ in. Rough | .75 per □ ft. |
| Glazing of above additional $.15 to | .30 per □ ft. |
| Glass Blocks, set in place | 3.50 per □ ft. |

### HEATING—Installed

| | |
|---|---|
| **Furnaces—Gas Fired** | |
| Floor Furnace, 25,000 BTU | $42.00- 80.00 |
| 35,000 BTU | 47.00- 87.00 |
| 45,000 BTU | 55.00- 95.00 |
| Automatic Control, Add | 39.00- 45.00 |
| Dual Wall Furnaces, 25,000 BTU | 72.00-134.00 |
| 35,000 BTU | 149.00 |
| 45,000 BTU | 161.00 |
| With Automatic Control, Add | 45.00-161.00 |
| Unit Heaters, 50,000 BTU | 215.00 |
| Gravity Furnace, 65,000 BTU | 210.00 |
| Forced Air Furnace, 75,000 BTU | 342.00 |
| **Water Heaters—5-year guarantee** | |
| With Thermostat Control. | |
| 20 gal. capacity | 96.00 |
| 30 gal. capacity | 112.00 |
| 40 gal. capacity | 135.00 |

## INSULATION AND WALLBOARD—

Rockwool Insulation—
Full thick 3" ..... $66.00
(2") Less than 1,000 □ ft. ..... 64.00
(2") Over 1,000 □ ft. ..... 59.00
Cotton Insulation—Full-thickness
(1") ..... $41.60 per M sq. ft.
Sisalation Aluminum Insulation—Aluminum coated on both sides ..... $23.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... 69.00 per M sq. ft.
Ceiling Tileboard ..... 69.00 per M sq. ft.

## IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

## LUMBER—Ex Lumber Yards

S4S Construction Grade
O.P. or D.F., per M. f.b.m. ..... $115.00

**Flooring—**

| | Per M Delvd |
|---|---|
| V.G.-D.F. B & Btr. 1 x 4 T & G Flooring | $225.00 |
| "C" and better—all | 215.00 |
| "D" and better—all | 145.00 |
| Rwd. Rustic—"A" grade, medium dry. 8 to 24 ft. | 185.00 |

Plywood, per M sq. ft.
¼-inch, 4.0x8.0-SIS ..... $120.00
½-inch, 4.0x8.0-SIS ..... 160.00
¾-inch, per M sq. ft. ..... 200.00
Plyform ..... 160.00

Shingles (Rwd. not available)—
Red Cedar No. 1—$9.50 per square; No. 2, $7.00; No. 3, $5.00.
Average cost to lay shingles, $7.50 per square.
Cedar Shakes—½" to ¾" x 24/26 in handsplit tapered or split resawn, per square ..... $15.25
¾" to 1¼" x 24/26 in split resawn, per square ..... 17.00
Average cost to lay shakes, $9.50 per square.

**Pressure Treated Lumber—**
Salt Treated ..... Add $45 per M to above
Creosoted, 8-lb. treatment ..... Add $52 per M to above

## MARBLE—(See Dealers)

## METAL LATH EXPANDED—

Standard Diamond. 3.40, Copper Bearing, LCL, per 100 sq. yds. ..... $45.50
Standard Ribbed, ditto ..... $49.50

## MILLWORK—Standard.

D. F. $200 per 1000, R. W. Rustic air dried $225 per 1000 (delivered).
Complete door unit, $21-$32.
Screen doors, $10 to $15 each.
Patent screen windows, $1.75 a sq. ft.
Cases for kitchen and pantries seven ft. high, per lineal ft., upper $10 to $15; lower $12 to $18.
Dining room cases, $20.00 per lineal foot. Rough and finish about $2.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $115 per M.
For smaller work average, $125 to $135 per 1000.

## PAINTING—

| | | |
|---|---|---|
| Two-coat work | per yard | $ .90 |
| Three-coat work | per yard | 1.35 |
| Cold water painting | per yard | .45 |
| Whitewashing | per yard | .25 |

| Linseed Oil, Strictly Pure (Basis 7¾ lbs. per gal.) | | Raw | Wholesale Boiled |
|---|---|---|---|
| Light iron drums | per gal. | $2.28 | $2.34 |
| 5-gallon cans | per gal. | 2.40 | 2.46 |
| 1-gallon cans | each | 2.52 | 2.58 |
| Quart cans | each | .71 | .72 |
| Pint cans | each | .38 | .39 |
| ½-pint cans | each | .24 | .24 |

| Turpentine (Basis, 7.2 lbs. per gal.) | | Pure Gum Spirits |
|---|---|---|
| Light iron drums | per gal. | $1.65 |
| 5-gallon cans | per gal. | 1.76 |
| 1-gallon cans | each | 1.88 |
| Quart cans | each | .54 |
| Pint cans | each | .31 |
| ½-pint cans | each | .20 |

**Pioneer White Lead in Oil Heavy Paste and All-Purpose (Soft-Paste)**

| Net Weight Packages | List Price Per 100 lbs. | List Price Pr. per pkg. | Price to Painters per 100 lbs. | Price to Painters Pr. per pkg. |
|---|---|---|---|---|
| 100-lb. kegs | $28.35 | $29.35 | $27.50 | $27.50 |
| 50-lb. kegs | 30.05 | 15.03 | 28.15 | 14.08 |
| 25-lb. kegs | 30.35 | 7.50 | 28.45 | 7.12 |
| 5-lb. cans* | 33.35 | 1.34 | 31.25 | 1.25 |
| 1-lb. cans* | 36.00 | .36 | 33.75 | .34 |

500 lbs. (one delivery) ¾c per pound less than above.
*Heavy Paste only.

**Pioneer Dry White Lead—Litharge—Dry Red Lead Red Lead in Oil**

| Price to Painters—Price Per 100 Pounds | 100 lbs. | 50 lbs. | 25 lbs. |
|---|---|---|---|
| Dry White Lead | $26.30 | $.... | $.... |
| Litharge | 25.95 | 26.60 | 26.90 |
| Dry Red Lead | 27.20 | 27.85 | 28.15 |
| Red Lead in Oil | 30.65 | 31.30 | 31.60 |

Pound cans, $.37 per lb.

## PATENT CHIMNEYS—Average

6-inch ..... $2.75 lineal foot
8-inch ..... 3.25 lineal foot
10-inch ..... 4.10 lineal foot
12-inch ..... 5.20 lineal foot
Installation ..... 75c to $1.50 lineal foot

## PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $27.00.

## PLASTERING (Interior)—

| | Yard |
|---|---|
| 3 Coats, metal lath and plaster | $3.75 |
| Keene cement on metal lath | 4.25 |
| Ceilings with ¾ hot roll channels metal lath (lathed only) | 3.75 |
| Ceilings with ¾ hot roll channels metal lath plastered | 5.60 |
| Single partition ¾ channels and metal lath 1 side (lath only) | 3.75 |
| Single partition ¾ channels and metal lath 2 inches thick plastered | 8.75 |
| 4-inch double partition ¾ channels and metal lath 2 sides (lath only) | 6.25 |
| 4-inch double partition ¾ channels and metal lath 2 sides plastered | 10.25 |

## PLASTERING (Exterior)—

| | Yard |
|---|---|
| 2 coats cement finish, brick or concrete wall | $2.25 |
| 3 coats cement finish, No. 18 gauge wire mesh | 3.00 |

Lime—$4.25 per bbl. at yard.
Processed Lime—$4.95 per bbl. at yard.
Rock or Grip Lath—⅜"—35c per sq. yd.
Composition Stucco—$4.50 sq. yd. (applied).
Lime Putty—$3.75 per bbl.

## PLUMBING—

From $250.00 - $300.00 per fixture up, according to grade, quality and runs.

## ROOFING—

"Standard" tar and gravel, 4 ply ..... $15.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $18.00 up per sq.
Tile $40.00 to $50.00 per square.
No. 1 Redwood Shingles in place. 4½ in. exposure, per square ..... $18.25
5/2 No. 1 Cedar Shingles, 5 in. exposure, per square ..... 16.50
5/8 x 16"—No. 1 Little Giant Cedar Shingles, 5" exposure, per square .. 18.25
4/2 No. 1-24" Royal Cedar Shingles 7½" exposure, per square ..... 23.00
Re-coat with Gravel $5.50 up per sq.
Compo Shingles, $17 to $25 per sq. laid
½ to ¾ x 25" Resawn Cedar Shakes, 10" Exposure ..... $24.00 to $30.00
¾ to 1¼ x 25" Resawn Cedar Shakes, 10" Exposure ..... $28.00 to $35.00
1 x 25" Resawn Cedar Shakes, 10" Exposure ..... $20.00 to $22.00
Above prices are for shakes in place.

## SEWER PIPE—

Vitrified, per foot: L.C.L. F.O.B. Warehouse, San Francisco.
Standard, 4-in. ..... $ .28
Standard, 6-in. ..... .51
Standard, 8-in. ..... .74
Standard, 12-in. ..... 1.61
Standard, 24-in. ..... 6.42
Clay Drain Pipe, per 1,000 L.F.
L.C.L., F.O.B. Warehouse, San Francisco:
Standard, 6-in. per M. ..... $240.00
Standard, 8-in. per M. ..... 400.00

## SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft., size 12'x12'. $3.75 per sq. ft., size 3'x6'.

## SKYLIGHTS—(not glazed)

Galvanized iron, per sq. ft. ..... $1.50
Vented hip skylights, per sq. ft. ..... 2.50
Aluminum, puttyless, (unglazed), per sq. ft. ..... 1.25
(installed and glazed), per sq. ft. ... 1.85

## STEEL—STRUCTURAL—10 to 50 Tons

$325 & up per ton erected, when out of mill.
$350 per ton erected, when out of stock.

## STEEL REINFORCING—

$185.00 & up per ton, in place.

| | |
|---|---|
| ¼-in. Rd. (Less than 1 ton) per 100 lbs. | $8.90 |
| ⅜-in. Rd. (Less than 1 ton) per 100 lbs. | 7.80 |
| ½-in. Rd. (Less than 1 ton) per 100 lbs. | 7.50 |
| ⅝-in. Rd. (Less than 1 ton) per 100 lbs. | 7.25 |
| ¾-in. & ⅞-in. Rd. (Less than 1 ton) | 7.15 |
| 1 in. & up (Less than 1 ton) | 7.10 |

1 ton to 5 tons, deduct 25c.

## STORE FRONTS—

Individual estimates recommended. See ESTIMATORS DIRECTORY for Architectural Veneer (3), and Mosaic Tile (35).

## TILE—

Ceramic Tile Floors—Commercial $1.45 to $1.70 per square foot.
Cove Base—$1.20 per lineal foot.
Quarry Tile Floors—6x6 with 6" base @ $1.35 per sq. ft.
Tile Wainscots and Floors—Residential, 4¼x4¼ @ $1.75 to $2.00.
Tile Wainscots—Commercial Jobs 4¼x4¼ Tile $1.60 to $1.85 per sq. ft.
Asphalt Tile Floor ⅛" - ⅜"....$ .25 - $ .35 sq. ft. Light shades slightly higher.
Cork Tile—$.60 $.70 per sq. ft.
Mosaic Floors—See dealers.
Linoleum tile, per □ ft. ..... $ .65
Rubber tile, per □ ft. ..... $ .55 to $ .75

**Furring Tile**

| Scored | F.O.B. S. F. |
|---|---|
| 12 x 12, each | $ .17 |

**Kraftile:** Per square foot
Patio Tile—Niles Red
12 x 12 x ⅞-inch, plain ..... $ .40
6 x 12 x ⅞-inch, plain ..... .43
6 x 6 x ⅞-inch, plain ..... .46

**Building Tile—**
8x5½x12-inches, per M. ..... $139.50
6x5½x12-inches, per M. ..... 105.00
4x5½x12-inches, per M. ..... 84.00

**Hollow Tile—**
12x12x2-inches, per M. ..... $146.75
12x12x3-inches, per M. ..... 156.85
12x12x4-inches, per M. ..... 177.10
12x12x6-inches, per M. ..... 235.30
F.O.B. Plant

## VENETIAN BLINDS—

45c per square foot and up. Installation extra.

## WINDOWS—STEEL—INDUSTRIAL—

Cost depends on design and quality required.

# QUICK REFERENCE
# ESTIMATOR'S DIRECTORY
## Building and Construction Materials

**ACOUSTICAL ENGINEERS**
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# CONSTRUCTION INDUSTRY WAGE RATES

**Table 1 has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research. The rates are the union hourly wage rates established by collective bargaining as of January 2, 1957, as reported by reliable sources.**

## Table 1—Union Hourly Wage Rates, Construction Industry, California

**Following are the hourly rates of compensation established by collective bargaining, reported as of January 2, 1957 or later**

| CRAFT | San Francisco | Alameda | Contra Costa | Fresno | Sacramento | San Joaquin | Santa Clara | Solano | Los Angeles | San Bernardino | San Diego | Santa Barbara | Kern |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.275 | $3.35 | $3.35 | $3.35 | $3.35 | $3.35 |
| BOILERMAKER | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 | 3.45 |
| BRICKLAYER | 3.75 | 3.75 | 3.75 | 3.70 | 3.50 | 3.50 | 3.875 | 3.75 | 3.80 | 3.80 | 3.75 | 3.75 | |
| BRICKLAYER HODCARRIER | 3.00 | 3.00 | 3.00 | 2.70 | 3.00 | 2.80 | 2.90 | 3.00 | 2.625 | 2.625 | 2.625 | | 2.625 |
| CARPENTER | 3.125 | 3.125 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.02 |
| CEMENT FINISHER | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.995 | 2.925 | 2.925 | 2.925 | 2.925 | 2.925 |
| CONCRETE MIXER: Skip Type (1 yd.) | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.705 | 2.74 | 2.74 | 2.74 | 2.74 | 2.74 |
| ELECTRICIAN | 3.375 | 3.375 | 3.375 | | 3.50 | 3.25 | 3.61 | 3.275 | 3.60 | 3.60 | 3.50 | 3.60 | 3.50 |
| ENGINEER: MATERIAL HOIST | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | 2.985 | | | | | |
| ELEVATOR HOIST OPERATOR | | | | | | | | | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| GLAZIER | 2.87 | 2.87 | 2.87 | | 2.905 | 2.905 | 2.87 | 2.87 | 2.885 | 2.885 | 2.90 | 2.885 | |
| IRONWORKER: ORNAMENTAL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| REINF. STEEL | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| STRUC. STEEL | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 | 3.40 |
| LABORERS: BUILDING | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| CONCRETE | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | | | | | |
| LATHER | 3.4375 | 3.84* | 3.84* | 3.45 | 3.45† | | 3.50 | 3.375 | 3.75‡ | 3.625 | 3.625 | 3.625 | |
| PAINTER: BRUSH | 3.10 | 3.10 | 3.10 | 2.90 | 3.00 | 2.95 | 3.10 | 3.25 | 3.01 | 3.00 | 2.94 | 3.03 | 2.95 |
| SPRAY | 3.10 | 3.10 | 3.10 | 3.15 | 3.25 | 3.10 | 3.10 | 3.50 | 3.26 | 3.25 | 3.49 | 3.03 | 3.20 |
| PILEDRIVER OPERATOR | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.325 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| PLASTERER | 3.6125 | 3.54 | 3.54 | 3.35 | 3.45† | 3.55 | 3.495 | 3.50 | 3.75 | | 3.625 | 3.625 | |
| PLASTERER HODCARRIER | 3.10 | 3.42 | 3.42 | 3.025 | 3.00 | 3.00 | 3.075 | 3.15 | 3.50 | 3.375 | 3.375 | 3.3125 | 3.25 |
| PLUMBER | 3.45 | 3.59 | 3.435 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| ROOFER | 3.00 | 3.20 | 3.20 | 3.05 | 2.975 | 3.05 | 3.00 | | 3.10§ | | 3.00 | 3.15 | 3.00 |
| SHEET METAL WORKER | 3.30 | 3.30 | 3.30 | 3.125 | 3.30 | 3.315 | 3.30 | 3.325 | 3.24 | 3.24 | 3.15 | 3.26 | 3.40 |
| STEAMFITTER | 3.45 | 3.69 | 3.69 | 3.45 | 3.45 | 3.45 | 3.45 | 3.55 | 3.55 | 3.55 | 3.55 | 3.55 | 3.575 |
| TRACTOR OPERATOR | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.095 | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| TRUCK DRIVER: Dump Trucks, under 4 yards | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.325 | 2.405 | 2.405 | 2.405 | 2.405 | 2.405 |
| TILE SETTER | 3.225 | 3.225 | 3.225 | 3.25 | 3.00 | 3.175 | 3.225 | 3.225 | 3.26 | 3.50 | 3.25 | 3.26 | 3.21 |

* $1.00 per day withheld from pay for a vacation allowance and transmitted to a vacation fund.

† 5 cents of this amount is deducted from wages as a vacation allowance and transmitted to a vacation fund.

‡ $3.625 for nail-on lather.

§ 10 cents of this amount is designated as a "savings fund wage" and is withheld from pay and transmitted to an employee savings fund.

*ATTENTION:* The above tabulation has been prepared by the State of California, Department of Industrial Relations, Division of Labor Statistics and Research, and represents data reported by building trades councils, union locals, contractor organizations and other reliable sources. Corrections and additions are made as information becomes available. The above rates do not include payments to health and welfare, pension, administration, apprentice training or vacation funds.

## Employer Contributions to Health and Welfare, Pension, Vacation and Other Funds
## California Union Contracts, Construction Industry
### (Revised March, 1957)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| ASBESTOS WORKER | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W<br>.11 hr. V | .10 W | .10 W | .10 W |

# CONSTRUCTION INDUSTRY WAGE RATES---(Table 2 Continued)

| CRAFT | San Francisco | Fresno | Sacramento | San Joaquin | Santa Clara | Los Angeles | San Bernardino | San Diego |
|---|---|---|---|---|---|---|---|---|
| BRICKLAYER | .15 W<br>.14 P<br>.05 hr. V | | .15 W<br>.10 P | | .15 W | | | |
| BRICKLAYER HODCARRIER | .10 W<br>.10 P<br>.10 V | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| CARPENTER | .10 W<br>.10 hr. V | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| CEMENT MASON | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W | .10 W |
| ELECTRICAL WORKER | .10 W<br>1% P<br>4% V | .10 W<br>1% P<br>4% V | .075 W<br>1% P | .075 W<br>1% P<br>4% V | 1% P | 1% P | 1% P | .10 W<br>1% P |
| GLAZIER | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>.05 V | .075 W<br>.05 V | .075 W<br>.085 V | .075 W<br>40 hr. V | .075 W<br>40 hr. V | .075 W<br>40 hr. V |
| IRONWORKER: REINFORCING<br>STRUCTURAL | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| LABORER, GENERAL | .10 W | .10 W | .10 W | .10 W | .10 W | .075 W | .075 W | .075 W |
| LATHER | .60 day W<br>.70 day V | | .10 W | .10 W | .075 W<br>.05 V | .90 day W | .70 day W | .10 W |
| OPERATING ENGINEER<br>TRACTOR OPERATOR (MIN.)<br>POWER SHOVEL OP. (MIN.) | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W | .10 W<br>.10 W |
| PAINTER, BRUSH | .095 W | .08 W | .075 W | .10 W | .095 W<br>.07 V | .085 W | .08 W | .09 W |
| PLASTERER | .10 W<br>.10 V | .10 W | .10 W | .10 W | .10 W<br>.15 V | .10 W | .90 day W | .10 W |
| PLUMBER | .10 W<br>.10 V | .15 W<br>.10 P | .10 W<br>.10 P<br>.125 V | .10 W | .10 W<br>.10 P<br>.125 V | .10 W | .90 day W | .10 W |
| ROOFER | .10 W<br>.10 V | .10 W | .10 W<br>.10 V | .10 W | .075 W<br>.10 V | .085 W | .10 W | .075 W |
| SHEET METAL WORKER | .075 W<br>4% V | .075 W<br>7 day V | .075 W<br>.10 V | .075 W<br>.12 V | .075 W<br>4% V | .085 W<br>.10 V | .085 W<br>.10 V | .085 W<br>5 day V |
| TILE SETTER | .075 W<br>.09 V | | | | .075 W<br>.09 V | .025 W<br>.06 V | | |

***ATTENTION:*** **The above tabulation has been prepared and compiled from the available data reported by building trades councils, union locals, contractor organizations and other reliable sources. The table was prepared from incomplete data; where no employer contributions are specified, it does not necessarily mean that none are required by the union contract.**

**The type of supplement is indicated by the following symbols: W—Health and Welfare; P—Pensions; V—Vacations; A—Apprentice training fund; Adm—Administration fund; JIB—Joint Industry Board; Prom—Promotion fund.**

## CONSTRUCTION CONTRACTS AWARDED AND MISCELLANEOUS PERSONNEL DATA

**ORTHOPEDIC HOSPITAL ADD'N,** Los Angeles. Los Angeles Orthopedic Hospital, Los Angeles, owner. 6-Story, steel frame and grid-wall addition to provide 157 beds, approximately 100,000 sq.ft. area, composition roof, concrete floor, ceramic tile, plastering, plumbing, electrical work, mosaic tile, acoustical, heating, ventilating, air conditioning, structural and miscellaneous metal, elevators, parking area—$6,000,000. ARCHITECT: Albert C. Martin & Associates. Architects and Engineers, 333 Beaudry St, Los Angeles. GENERAL CONTRACTOR: Wm. Simpson Const Co, 2401 Beverly Blvd, Los Angeles.

**OFFICE BLDG,** Sacramento. Frank K. Richardson, Sacramento, owner. 2-Story frame and masonry professional building, architectural offices on second floor, attorneys and accounting first floor—$76,164. ARCHITECT: Cox & Liske, Whitson W. Cox, Architect, 926 J. St, Sacramento. GENERAL CONTRACTOR: Gavel & Flanders, 229 W. St, Sacramento.

**SHOPPING CENTER,** Bellflower, Los Angeles county. Fields & Litchman, Bellflower, owner. 18-Store shopping center, all under one roof, reinforced concrete block, concrete slab, composition roof, wood roof sheathing, metal sash, heating and ventilating, toilet facilities, electrical work, full glass flush fronts. ARCHITECT: Kanner-Mayer, 4055 Wilshire Blvd, Los Angeles. GENERAL CONTRACTOR: H. Kaplan Co, 5304 Venice Blvd, Los Angeles.

**INSURANCE BLDG,** San Rafael, Marin county. Northwestern Savings & Loan Co, San Rafael, owner. 1-Story Class "A" building, steel frame, reinforced grouted brick, built-up roof, 13,700 sq.ft. of area—$219,255. ARCHITECT: Eugene E. Crawford, 920 5th, San Rafael. GENERAL CONTRACTOR: R. E. Murphy & Sons, 428 Irwin St, San Rafael.

**CONVENT RESIDENCE,** Azusa, Los Angeles county. Missionary Sisters of Our Lady of Victory, Azusa, owner. Residence to contain dining room, living room, kitchen, chapel and eight bedrooms; frame and stucco construction, composition roof, slab and pine floor, asphalt tile work, interior plaster, aluminum sash, forced air heating, tile toilets and baths, folding partitions. ARCHITECT: Jerome De Hetre, 414 N. Burris, Compton. GENERAL CONTRACTOR: Paul Larsen, 1074 Tyleen Place, Pomona.

**VETERANS HOSPITAL ADD'N,** Palo Alto, aSnta Clara county. U.S. Government Veterans Administration, Washington, D. ., owner. Project comprises site work, some demolition of existing buildings, mechanical and electrical work, refrgieration, elevators, dumb waiters, driveways, walks, drainage—$19,877,500. ARCHITECT: Welton Becket & Asso-

ciates, 5657 Wilshire Blvd, Los Angeles. STRUCTURAL ENGINEER: Robinson & Giddings, 80 Stonestown, San Francisco. GENERAL CONTRACTOR: Robert E. McKee Co, P.O. Box 350, Glendale, Calif.

**CLINIC ADD'N,** Langley Porter, San Francisco, State of California, Sacramento, owner. Construction of a 4-story addition with 29,000 sq. ft. of area—$438,335. ARCHITECT: Anson Boyd, State Architect, Sacramento. GENERAL CONTRACTOR: S. J. Amoroso Const. Co., 2100 Oakdale Ave., San Francisco.

**ACADEMIC BLDG.,** Adams Jr. High School, Richmond, Contra Costa county. Richmond High School District, owner. 3 Story concrete slab construction, 88,000 sq. ft. area—$1,155,770. ARCHITECT: John Carl Warnecke, 111 New Montgomery St., San Francisco. GENERAL CONTRACTOR: Elmer J. Freethy, 1432 Kearney St., El Cerrito.

**ELEMENTARY SCHOOL,** New Alvarado, Alameda county. Alvarado School District, owner. Comprises classrooms, multi-purpose, kitchen, kindergarten, toilet room; wood frame and stucco construction, built-up roof of tar and gravel—$340,100. ARCHITECT: Hale & Jacobsohn, 241 Vallejo St., Mission San Jose. GENERAL CONTRACTOR: Rubino & Gullickson, 41 S. Wilson Way, Stockton.

**FIRE HOUSE,** Engine #21, San Francisco. City & County of San Francisco, owner. 2 Story, dormitory facilities on 2nd floor, kitchen, toilet rooms; reinforced concrete construction—$182,511. ARCHITECT: Leonard S. Mosias, 1488 Howard St., San Francisco; Charles W. Griffiths, City Architect, City Hall, San Francisco. GENERAL CONTRACTOR: Peter Sartorio, 140 Renier St., Colma.


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- **Curbs**
- **Sidewalks**
- **Gutters**
- **Driveways**
- **Slabs**
- **Bracing**
- **Anchoring**
- **Screeding**
- **Floor Slabs**
- **Ground Slabs**
- **Tilt-up Slabs**

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**MARKET BLDG.,** Fresno. Norton Buddell Rich & Associates, Fresno, owner. 1 Story, with provision for a second story; concrete block, composition roof, over wood decking, steel trusses, concrete slab floors, aluminum sash and trim, automatic doors—$133,000. ARCHITECT: James P. Lockett, Bank of America Bldg., Visalia. GENERAL CONTRACTOR: Clarence Ward Const. Co., 4323 E. Harvey St., Fresno.

**ART CENTER,** Pomona College, Claremont, Los Angeles county. Pomona College, owner. 1 Story concrete block walls, wood frame, composition roof, structural steel, ornamental metal, sheet metal, lath and plaster, solid section metal windows, hollow metal doors, tile work, acoustical and sound insulation, metal toilet partitions, sliding glass doors, fabric wall covering, plumbing, heating, ventilating, air conditioning; 7000 sq. ft. area—$153,916. ARCHITECT: Smith, Powell & Morgridge, 208 W. 8th St., Los Angeles. GENERAL CONTRACTOR: J. Putnam Henck, 3947 Sierra Way, San Bernardino.

**OFFICE,** Walnut Creek, Contra Costa county. Contra Costa Real Estate Board, Walnut Creek, owner. 1 and part 2 story pre-cast reinforced concrete and structural steel building—$69,825. ARCHITECT: Aitken & Collins, 2102 Vine St., Berkeley. GENERAL CONTRACTOR: F. P. Lathrop Const. Co., 800 University Ave., Berkeley.

**NEW CHURCH,** Stockton, San Joaquin county. Central Methodist Church, Stockton, owner. 1 Story concrete block construction, concrete beams, composition roof; first unit to be a Fellowship Hall. ARCHITECT: Carlton Steiner, 2941 Telegraph Ave., Berkeley. GENERAL CONTRACTOR: Craft Const. Co., 2812 Sanguinetti Lane, Stockton.

**WAREHOUSE,** Los Angeles. Mr. McClanahan, Maywood, owner. Concrete block warehouse 40x120 ft., composition roof, concrete slab, asphalt tile and marble floors, structural steel and over hung doors—$15,000. ARCHITECT: Paul N. Davey & Associates, 6426 Eastern Ave., Bell Gardens. GENERAL CONTRACTOR: J. W. Jones Const. Co., 4800 E. Florence Ave., Bell.

**NEW SCHOOL,** Stead Air Force Base, Reno, Nevada. Washoe County School District, Reno, owner. Complete facilities for a new school building at the Stead Air Force Base near Reno—$432,810. ARCHITECT: Vhay & Grow, 33 E. Truckee River Lane, Reno. GENERAL CONTRACTOR: Harrington Const. Co., 745 S. Center Street, Reno.

**WINERY & PLANT,** Saratoga, Santa Clara county. Paul Masson Vineyards Co., owner. Project calls for construction of a new winery, a new bottling plant and an aging plant on an 18 acre site adjacent to the present winery and facilities—$5,000,000. ARCHITECT: John S. Bolles, Pier 5, Embarcadero, San Francisco. GENERAL CONTRACTOR: Williams & Burrows, Inc., 500 Harbor Blvd., Belmont.

**MUSIC BLDG. & DANCE STUDIO,** Scripps College, Claremont, owner. The new Music Building and Dance Studio will contain 11,600 sq. ft. of area, masonry construction, tapered steel beams, tile and rock roofing, slab floors, steel sash, vinyl and ceramic tile work, interior plaster, acoustic ceilings, rotary roof vents, sound proofing, future air conditioning, asphalt paving. ARCHITECT: Smith & Williams, 204 S. Los Robles Ave., Pasadena. GENERAL CONTRACTOR: Escherich Bros., Inc., 645 South Avenue 21, Los Angeles.

**INDUSTRIAL BLDG.,** San Leandro, Alameda county. Stella D'Oro Biscuit Co., owner. 1 Story concrete tilt-up construction, steel girders, concrete and asphalt tile floors; office space to have second floor. ARCHITECT: Lloyd Gartner, 821 Market St., San Francisco. GENERAL CONTRACTOR: Bishop-Mattei Const. Co., Pier 7, Embarcadero, San Francisco.

**PHARMACEUTICAL PLANT,** Canoga Park, Los Angeles county. Riker Laboratories, Inc., Los Angeles, owner. New pharmaceutical manufacturing plant will include 72x200 ft. warehouse; 50x80 ft. maintenance shop building; 72x280 ft. laboratory; 72x200 ft. office building and three factory buildings 40x50 ft., 72x200 ft. and 50x60 ft.; concrete construction, slab floors, composition and metal roofing, structural steel, metal sash, landscaping and paving. ENGINEER: John K. Minasian, Structural Engineer, 758 Colorado Blvd., Los Angeles. GENERAL CONTRACTOR: Donald F. Shaw, 1901 Blake Ave., Los Angeles.

**MARKET,** Bel-Air, Sacramento. John Bruns, owner. 1 Story tilt-up construction, interior walls of frame construction—$160,680. ARCHITECT: Herbert E. Goodpastor, 1812 J St., Sacramento. GENERAL CONTRACTOR: Campbell Const. Co., P.O. Box 390, Sacramento.

**COMMERCIAL BLDG.,** Walnut Creek, Contra Costa county. Philip Heraty, owner. 1 Story concrete block construction—$29,480. DESIGNER: William L. Diehl, 1784 Main St., Walnut Creek. GENERAL CONTRACTOR: Roth Development Co. & Russell Hufft (J-V), 2915 Mt. Diablo Blvd., Walnut Creek.

**SHOPPING CENTER,** Panorama City, Los Angeles county. Gold Realty Co., Panorama City, owner. Project includes a masonry restaurant and store building 6,000 sq. ft. in area, tapered steel girders, wood roof with composition roofing, concrete slab, cooling, plumbing, electrical, canopies and sun shades; balance of project consists of frame and stucco store buildings of 5500 sq. ft. area; asphalt paved area, including lighting, landscaping, bumpers and striping. ARCHITECT: A. Jaye Levin, 812 N. Robertson Blvd., Los Angeles. GENERAL CONTRACTOR: Contracting Engineers Co., 2310½ W. Vernon Ave., Los Angeles.

**LIBRARY ADD'N,** Hayward, Alameda county. City of Hayward, owner. 1 Story, steel frame and concrete construction, concrete slab floors, steel roof trusses—$67,375. ARCHITECT: Wahamaki & Corey, 1035 B St., Hayward. GENERAL CONTRACTOR: Norden Const. Co., 1913 Bay Rd., Palo Alto.

**THEOLOGICAL SEMINARY,** Golden Gate Baptist, Strawberry Point, Marin county. Golden Gate Baptist Theological Seminary, Berkeley, owner. First phase of project development includes Academic building with classrooms and music wings; Recital Hall with approximate 600 seating capacity; Administration buildings; Cafe-

teria, and parking areas, site improvement, and concrete and structural steel construction — $2,051,750. ARCHITECT: John Carl Warnecke, 111 New Montgomery St., San Francisco. GENERAL CONTRACTOR: Cahill Const. Co., 350 Sansome St., San Francisco.

**RESTAURANT,** Sepulveda, Los Angeles county. Sepulveda Enterprise, owner. Palos Verdes type stone veneer, wood frame and stucco construction, composition rock roof, plate glass, glass doors, concrete slab, terrazzo, slate entry, carpeting, acoustical plaster, interior plaster, air conditioning, false beams, cocktail lounge, kitchen, offices, walk-in refrigerator, toilet facilities —$20,000. ENGINEER: Patrick Fretto, Consulting Engineer, 8943 Balcom, Northridge. GENERAL CONTRACTOR: Joseph Amorosa, 8645 Sepulveda Blvd., Sepulveda.

**PRESS CLUB BLDG.,** Palo Alto, Santa Clara county. Press Association, owner. 2 Story office building with 1 story for main building, concrete tilt-up construction, composition roof, concrete slab floors, 10,000 sq. ft. of area—$100,600. ENGINEER: Davies & Smart, 1665 Laural St., San Carlos. ARCHITECT: Bernard G. Nobler, Brewster-Warren Bldg., Redwood City. GENERAL CONTRACTOR: Vance M. Brown & Sons, Inc., 351 Pepper Ave., Palo Alto.

**WAREHOUSE & OFFICE:** Northridge, Los Angeles county. Railway Express Agency, Inc., Northridge, owner. Reinforced brick warehouse and office building, composition roofing, tapered steel girders, louver sash, store doors, concrete slab, asphalt tile flooring, interior plaster, acoustical plaster, air compressor, overhead doors, electric, plumbing, toilet facilities— $30,000. ENGINEER: E. H. McDonie, Consulting Engineer, 17608 Chatsworth St., Granada. GENERAL CONTRACTOR: Tom Kolby, 8816 White Oak Ave., Northridge.

**STORE BLDG.,** Fresno. S. H. Kress & Co., New York City, N. Y., owner. Structural steel frame, reinforced concrete construction, 45,000 sq. ft. area—$1,000,000. ARCHITECT: Davidson & Associates (Supervising), 3142 Wilshire Blvd., Los Angeles. GENERAL CONTRACTOR: Swinerton & Walberg, 200 Bush St., San Francisco.

**BOWLING ALLEY & DRIVE-IN,** San Jose, Santa Clara county. Mel Weiss & Hal Dobbs, San Jose, owners. Construction of a complete bowling alley-drive-in restaurant and recreation center on a 3½ acre site, with parking facilities for 350 automobiles—$2,000,000. ARCHITECT: Goodwin Steinberg, 302 Main St., Los Altos. Consulting Architect, Mario Gaidano, 605 Washington St., San Francisco.

GENERAL CONTRACTOR: Associated Const. & Engrg. Co., 2903 Geneva St., San Francisco.

**CHURCH SCHOOL ADD'N,** Bellflower, Los Angeles county. Presbyterian Church of Bellflower, owner. Frame and stucco construction, tile roofing, plaster and wood panel interior, concrete slab and asphalt tile floor, forced air heating, wood double hung and transom sash, laminated plastic counter tops, chalk and tack board, colored concrete walks, composition roofing, cabinet work, asphaltic concrete paving—$21,000. ARCHITECT: Frederick Hodgdon, 400 W. Coast Highway, Newport Beach. GENERAL CONTRACTOR: Contracts by owner.

**COLLEGE ADD'N,** Bellarmine, San Jose, Santa Clara county. Bellarmine Preparatory College, Santa Clara, owner. 1 Story reinforced concrete construction; facilities to include office wing for administration of student activities; 15 classrooms, library with mezzanine, Science wing for Physics and Radio Shop and 2 basements—$419,778. ARCHITECT: Binder & Curtis, 35 W. San Carlos, San Carlos. GENERAL CONTRACTOR: Lew Jones Const., 1535 S. 10th St., San Jose.

**GYMNASIUM ADD'N,** High School, Anderson, Shasta county. Anderson Union High School District, Anderson, owner. Concrete tilt-up construction, wood floor over concrete slab, steel roof framing, wood roof deck with composition roofing —$297,875. ARCHITECT: Donald Francis Haines, 341 Mission St., San Francisco.

GENERAL CONTRACTOR: J. Hugh McAnulty, 382 E. 10th Ave., Chico.

**SHOP & OFFICE,** Sunnyvale, Santa Clara county. City of Sunnyvale, owner. Reinforced concrete and glued laminated beam construction for a new warehouse and shop building; Steel frame and window walls for the shop and office building —$204,300. ARCHITECT: Ned Abrams, 575 Britton Ave., Sunnyvale. GENERAL CONTRACTOR: Cortelyou & Cole Const. Co., 546 Oxford St., Palo Alto.

**BOOK STORE,** State College, San Diego. San Diego State College, owner. 3 Story book store building on the State College campus, San Diego—$269,515. ARCHITECT: Paderewski, Mitchell & Dean, 521 B St., San Diego. GENERAL CONTRACTOR: Reis Const. Co., 5234 El Cajon Blvd., San Diego.

**BOYS CAMP,** Marek Canyon, San Gabriel Mountains. Los Angeles County Board of Supervisors, owner. Construction of the Marek Canyon Boys Camp within 365 days — $667,000. ARCHITECT: Raphael A. Nicolais & Associates, 6239 Wilshire Blvd, Los Angeles. GENERAL CONTRACTOR: W. H. Christensen, 18714 Parthenia St, Northridge, Los Angeles.

**INTERMEDIATE SCHOOL,** Fairview, Lafayette, Contra Costa county. Lafayette School District, owner. Wood and frame construction with built-up roof; facilities for Administration, 9-classrooms, work rooms, library, science, music, storage rooms, multi-use, covered corridors and site work—$519,588. ARCHITECT: Falk & Booth, 16 Beale St, San Francisco. GENERAL CONTRACTOR: Barnhart Const Co, 785 Walsh Ave, Santa Clara.

**RECREATION CENTER,** Bellflower, Los Angeles county. Ducommun Realty Co, Bellflower, owner. Construction of recereation center on a 4-acre site to include bowling alley, restaurant, cocktail lounge, coffee shop, billiard room and locker room, retail store area, miniature golf area and related facilities; masonry and concrete construction, composition roof, concrete slab, asphalt tile and resilient flooring, extensive glass and metal trim, air conditioning, kitchen. ARCHITECT: Welton Becket and Associates, 5657 Wilshire Blvd, Los Angeles. GENERAL CONTRACTOR: T-S Const Engineers, 600 St Paul Ave, Los Angeles.

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# IN THE NEWS

## ADRIAN WILSON ASSOCIATES HOLD OPEN HOUSE

The firm of Adrian Wilson and Associates, Architects and Engineers, 816 W. Fifth Street, Los Angeles, held an "open-house" recently to give the public and construction industry an opportunity to view their new office facilities in Los Angeles, which now include the entire sixth floor of the Architect's Building.

The firm's offices have been completely remodeled and redecorated and designed to meet increased production requirements in the fields of architecture, engineering, master planning and site development.

Other offices of the firm are located in Las Vegas, Nevada; Ankara, Manila, Nagoya, Tokyo and San Francisco.

## LUXURY MOTEL PLANNED

The office of Kurt Gross, Architect, San Jose, William May, architect, has announced the contemplated construction of a 26-unit luxury garden type motel for the Drury F. McCarthy Corporation of Los Altos, in Menlo Park.

Five units will be 2-story, other units 1-story, private patios; 12 units will overlook a swimming pool. Construction will also include two executive suites and a conference room. Estimated cost of the project is $250,000. Completion of the work is scheduled for July of 1958.

## CALIFORNIA ARCHITECTS WIN AWARDS

Four of the seven top awards in the fourth annual Interior Design Awards Program sponsored by Institutions Magazine in conjunction with the National Hotel Exposition in New York have been awarded to California architects.

Awards of Merit for "outstanding achievement in interior design throughout the western hemisphere" were presented to Thornton Ladd and Associates, Los Angeles, for the Stuff Shirt Restaurant of Upland; George V. Russell, AIA, 3275 Wilshire Blvd., Los Angeles, for the Employee Cafeteria, Lockheed Aircraft Service Inc. in Ontario; Victor Gruen Associates, Los Angeles, for the Valley View Room of Dayton's Department Store, Minneapolis; and Mario Gaidano, AIA, 605 Washington St., San Francisco, for Sandy's Kitchen in Palo Alto.

## YUBA CITY HIGH SCHOOL ADDITION

Architect Gordon Stafford, 1024½ "J" Street, Sacramento, has completed plans for the addition of a cafeteria and multi-use room to the Yuba City High School, for the Yuba City High School District.

## INDUSTRIAL LABORATORY, BUENA PARK

Architect Raymond D. Conwell & Associates, 919 S. Garfield Ave., Los Angeles, is preparing drawings for construction of a 1-story reinforced concrete tilt-up exterior wall laboratory building in Buena Park.

The 50 x 100 ft. building will have composition roof, tapered steel beams, fixed metal windows, concrete slab floors, air conditioning, restrooms, underground concrete vault and asphaltic paving in a parking area.

## JAMES C. KELLEY APPOINTED BY GENERAL ELECTRIC

James C. Kelley has been appointed to the post of development chemist at General Electric Company's New Product Development Laboratory, according to an announcement by Leroy S. Moods, Laboratory manager.

Kelley, a graduate of Tufts College, joined General Electric in 1955 as a process engineer. He will be located at the Pittsfield headquarters of GE's Chemical and Metallurgical Division.

## RECONSTRUCT PETALUMA'S HIGH SCHOOL

The architectural firm of Reynolds & Chamberlain, 3833 Piedmont Ave., Oakland, is preparing plans for a major reconstruction of the high school building in Petaluma, for the Petaluma City School District.

The contemplated work will be of wood frame, with some concrete construction and cost an estimated $1,500,000.

## EDWARD McNARY PROMOTED BY FLUOR CORP.

Edward McNary has been appointed controller and assistant secretary of the Fluor Corp., Ltd., succeeding John Schuler, who has been named to the newly created post of controller for the Fluor Corporation of Canada, Ltd.

McNary was with the Ford Motor Company, serving as assistant controller and assistant treasurer for the Ford subsidiary Aeronutronics Systems, Inc., Glendale, California, before joining Fluor, Los Angeles based engineering and construction firm.

He is a member of the National Association of Accountants and received his Master of Business Administration degree from the University of Denver. At present McNary is a member of the evening division faculty at the University of California, Los Angeles branch.

## TURLOCK IRRIGATION DISTRICT BUILDS NEW OFFICE

Architect Donald L. Hardison, 160 Broadway, Richmond, has completed plans for construction of a 1-story and basement, structural steel frame and reinforced concrete office building in Turlock for the Turlock Irrigation District.

Estimated cost of the project is $400,000.

## PLAN NEW BEACH CLUB FOR SANTA MONICA BEACH

The firm of Kennedy, Woodman and Hudson, Architects and Associate, 2721 E. Coast Highway, Corona Del Mar, is preparing working drawings for construction of a new Beach Club on the Pacific Coast Highway in Santa Monica for the Board of Trustees of the Palisades Beach Club.

The new facilities will comprise 1800 sq. ft. area and will include club rooms, showers, rest room, kitchen and dining area. Construction will be of frame, stucco, concrete block and horizontal wood siding, composition gravel and cedar shake


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### CHARLES C. MARTIN APPOINTED BY HOLLY-GENERAL

Charles C. Martin has been appointed manager of Advertising and Sales Promotion of Holly-General Company, a Division of the Sieger Corporation, Pasadena, according to an announcement by W. J. Keegan, president.

Martin is well known in the plumbing and heating industry and among plumbing and heating contractors in California. He brings to his new post more than twenty years' experience in marketing, sales management and advertising in the heating, plumbing and air conditioning field. Offices will be located in Holly-General's Pasadena plant.

### SWIMMING POOL AND BATH HOUSE AT LANCASTER

The architectural firm of Neptune & Thomas, 742 Colorado Blvd., Los Angeles, is completing drawings for construction of a swimming pool and bath house in the Jane Reynolds Park, Lancaster.

The new facilities include women's and men's dressing rooms, showers, check rooms, cashier's area, manager's office, storage rooms, landscaping, sprinkler system, chain link fencing and floodlighting, and the buildings will be of concrete block construction.

The 100 x 50 ft. pool will be constructed of reinforced concrete poured in place, bolloms and gunited reinforced concrete sides with a 4-in. concrete slab deck.

Estimated cost is $220,000.

### SANTA ROSA PLANS NEW GOLF AND COUNTRY CLUB

Architect J. Clarence Felciano, 4010 Montecito Avenue, Santa Rosa, is completing drawings for construction of a new Golf and Country Club to be built near Santa Rosa at an estimated cost of $145,000.

The new facilities will be of wood frame and laminated wood beams, and wood siding construction, and will provide a Pro Shop, men's locker and shower room, a bath house and swimming pool, and a bar and grill. The complete project will be constructed in two stages, some of the preliminary work being of a temporary nature.

### GROUND BROKEN FOR NEW PRINT PLANT

Architect Bernard G. Nobler, Redwood City, has completed plans for construction of a new 14,200 sq. ft. building in Palo Alto for The National Press.

Ground was broken for the $140,000 project this month, and it is expected the building will be ready for occupancy by June 15th, 1958.

### ARCHITECT SELECTED FOR SCHOOL

Architect Charles F. Strothoff, 1855 Market St., San Francisco, has been selected by the East Contra Costa Junior College, Concord, to design and draft plans for the construction of a new science building to be built on the college campus at Concord.

Estimated cost of the project is $500,000.

### SAN RAFAEL SCHOOL DISTRICT BUILDS NEW SCHOOL

Architect Gromme, Mulvin & Priestly, 1539A 4th Street, San Rafael, is preparing preliminary plans for construction of a new school building west of the Hertzell School, just south of the Freitas Ranch House, at an estimated cost of $1,500,000.

The new high school facilities will provide for 700 students and will include administration building, library, academic wing, 2 shops, cafeteria-auditorium, gymnasium, boys' and girls' locker rooms and showers, playing fields, and toilet facilities.

It is anticipated the buildings will be ready for the fall school term of 1959.

### MONTEREY PENINSULA COLLEGE PLANS NEW ADDITION

Architect Wallace Holm and Associates, 321 Webster Street, Monterey, is preparing drawings for construction of a new Engineering-Physics building addition to the Monterey Peninsula College in Monterey.

The new building will be of wood and frame construction.

### PAVILION THEATER PLANNED FOR WALNUT CREEK

Architect Buckminster Fuller of Raleigh, North Carolina, in conjunction with the engineering firm of L. H. & B. L. Nishkian, 1045 Sansome St., San Francisco,


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is preparing plans for construction of a 2000 seating capacity Pavilion Theater to be built near Walnut Creek.

The facility will be of geodesic aluminum construction, with a canvas roof; a 34 ft. circle stage, 45 ft. high dome, balcony, sub-basement, hydraulic stage and full equipment and a paved parking area.

### FLORIDA ARCHITECT CHANGES FIRM NAME

Morris Lapidus, well known for his work on the Fontainebleau, Eden Roc and Americana Hotels in Miami Beach, Florida, recently announced the changing of his firm name to Morris Lapidus, Kornblath, Harle and O'Mara.

The firm has offices in New York City and Miami Beach.

Each member of the firm, with the exception of O'Mara, began with Lapidus as an office boy and has been trained over a period of time in the work specialized in by the organization.

### PLAN DEVELOPED FOR PLUMBER ENGINEERING COUNCIL

A proposal, developed by the Building Research Institute's Plumbing Research Committee, to establish a Plumbing Engineering Council has been endorsed by the American Society of Sanitary Engineers, according to William H. Scheick, Building Research Institute executive director.

Objectives of the Council are to work for the development of more and better standards, the upgrading of existing standards, and the establishment of uniform testing procedures.

### YUBA COUNTY TO BUILD NEW COURT HOUSE

Architects Hanson and Winkler of San Francisco have been commissioned by the Yuba County Board of Supervisors to design a new County Court House building to be built in Marysville.

Estimated cost of the project is $1,000,000.

### JOHN C. EPPERSON HAS JOINED WITH PEERLESS ELECTRIC

John C. Epperson, formerly president of the J. C. Epperson Company, manufacturers' representative for many lighting lines, has joined the Peerless Electric Company of San Francisco, as national sales manager.

Epperson, widely known among architects, engineers and contractors, is vice chairman of the Illuminating Engineering Society, Golden Gate Section. He will direct the sales and distribution of fixtures manufactured by Peerless.

Peerless has also announced the promotion of Charles Krinard to Sales and Service Co-ordinator.

### ARCHITECT SELECTED FOR POMONA PLANT OF SUBURBAN GAS

W. R. Sidenfaden, president of Suburban Gas Service, Inc., with operations throughout California, Arizona, Colorado and the Pacific Northwest, announced the selection of Victor Gruen Associates to do the complete architectural work of a $175,000 one-story structure to be erected in the city of Pomona.

The new 10,000 sq. ft. building will house the home office of Suburban Gas Service. Construction will begin in the spring of 1958.

### COMMUNITY HOUSING PROJECT PLANNED FOR STANFORD

Architect Eldridge T. Spencer, Director of Planning for Stanford University, has announced the appointment of the architectural firm of Wurster, Bernardi & Emmons, San Francisco, who will design some 1250 to 1500 apartments, in three bedroom units, to be built on a tract of land set aside by the university to be developed for residential use.

Plans contemplate that at least 250 of the new apartment units will be completed and ready for use by the fall of 1959.

Estimated cost of the project is $3,000,000.

### NEW BUILDING FOR CALIFORNIA TEACHERS

The California Teachers Association has acquired a site in the Mills Estate development, Burlingame, and will soon start construction of a new $1,000,000 office building to house the general offices of the association. The present facilities in San Francisco have been acquired by the California Medical Association.

Welton Beckett & Associates, architects, have undertaken preliminary drawings for the new San Mateo county building and expect actual construction will start early in the summer of 1958.

### ST. JOSEPH'S CHURCH WILL BUILD NEW CONVENT AND CHAPEL

Architects Comeau & Brooks, of Encino, are completing working drawings for con-

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struction of a 2-story, frame and stucco convent and chapel building in Pomona for the St. Joseph's Parish.

Dormitory facilities will include 19 bedrooms, 10 baths, 10 lavatory units, a dining room, kitchen and storage area. Construction will be of concrete and steel, metal sash, tile roof, garbage disposal, built-in oven and range, hood and fan, ceramic tile work, and asphaltic tile flooring.

### NEW HIGH SCHOOL PLANNED FOR SAN LEANDRO

Architects Schmidts, Hardman & Wong, 1320 University Avenue, Berkeley, are working on plans for construction of a new Pacific High School for San Leandro, which will include facilities for 19 classrooms, circular Academic building, library, cafeteria, 2-story enclosed walkways to connect with "L" shaped science unit, homemaking, business, arts and shops, gymnasium and all related accessories.

The 2-story, unusual design features a circular academic building. The new high school will be built on a 40-acre site on First Avenue, and will cost an estimated $2,650,000.

### UNITED STATES CONSUL GENERAL OFFICES

Architects Jones & Emmons of 12248 Santa Monica Blvd., West Los Angeles, are completing plans for construction of a United States Consul General Office Building in Singapore, British Malaya, for the United States Department of State.

The project consists of two connected buildings, 5-story and 2-story, reinforced concrete construction, air conditioning, plumbing, electrical, metal sash, brick and tile work, elevators and concrete piling; 37,000 sq. ft. of area. The estimated cost is $450,000.

### FIFTY BED HOSPITAL PLANNED

Architect Riener C. Nielsen, 4072 Crenshaw Blvd., Los Angeles, is completing plans for construction of a new 50-bed Medical-Surgical and Obstetrical Hospital in Oakland for the Civic Center Hospital Foundation of Oakland.

The new building will be 1 story, reinforced brick construction on concrete foundations, composition roof, concrete slab and asbestos tile floors, forced air heating, air conditioning, complete fire alarm system, fire doors, aluminum entrance, steel sash, parking for approximately 60 cars; will also include 30 medical room building with off-street parking.

The hospital itself will contain 27,000 sq. ft. of area, and the entire project will cost an estimated $500,000.

### COAST GUARD SWIMMING POOL FOR ALAMEDA

Architect Ernest J. Kump, 450 Ramona St., Palo Alto, is working on plans for construction of an Olympic size swimming pool for the U.S. Coast Guard, to be built in Alameda.

The pool will be equipped with training facilities including administration offices, men's and women's lockers, showers and dressing room, storage area, mechanical rooms, toilet rooms, and will be of concrete, the buildings precast with glass side walls. Estimated cost is $230,000.

### MACHINE SHOP BUILDING PLANNED

H. L. Standefer, Consulting Engineer, 4344 Laurel Canyon Blvd., Studio City, has completed plans for construction of a concrete block machine shop in Burbank.

The 50 x 116 ft. building will be with composition roof, tapered steel girders, overhead doors, steel sash, skylights, rotary roof vents, concrete slab, and will include asphaltic concrete paving for customer convenience.

### VETERAN'S MEMORIAL BUILDING

Architect James P. Lockett, Bank of America Building, Visalia, is completing drawings for construction of a $90,000 Veteran's Memorial Building to be built in Three Rivers, Tulare county, for the Woodlake Memorial District.

The new building will be of masonry wall construction with concrete floors and composition roofing.

### WILLIAM F. STEINER APPOINTED FACTORY SALES ENGINEER

William F. Steiner has been appointed factory sales engineer in the northern California area for The Payne Company of La Puente, California, according to a recent announcement.

Steiner's responsibility will be to provide additional field engineering and sales assistance. He will make his headquarters in San Francisco.

### ANNOUNCE PLANS FOR ENLARGING THE LOS ANGELES HARBOR

A giant new combination passenger-cargo facility is to be built at Los Angeles Harbor, according to an announcement made following the signing of an agreement by the Board of Harbor Commis-


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sioners and the American President Lines.

The agreement provides that the new shipping installation will be preferentially assigned to American President Lines and that all passenger and cargo business in Los Angeles and the surrounding area will be handled through the new facility for at least 20 years. The agreement is subject to the approval of the Los Angeles City Council.

Construction will include a two-story passenger-cargo shed, 1050 ft. by 200 ft., with passenger facilities on the upper floor; and a one story cargo shed, 630 ft. by 200 ft. A new slip 1200 ft. long, 400 ft. wide and 35 ft. deep will be dredged from a shallow inlet at an estimated cost of $1,000,000.

The project, complete with wharf, a 3000 car paved parking area, access roads, rail facilities and other special features, will cost an estimated $14,000,000.

### SAFEWAY STORES ANNOUNCE BIG EXPANSION

Quentin Reynolds, district manager of the Safeway Stores in Oakland, announced recently that his firm will build several new large stores and improve the facilities of many others in Northern California under an expansion program which will cost some $25,000,000.

Wurster, Bernardi & Emmons, Architects, San Francisco, will serve as architects for the expansion program.

### F. KIRK HELM WILL DIRECT ARCHITECTS DESIGN DIVISION

F. Kirk Helm of Geneva, New York, has been appointed director of architecture of the architectural and engineering firm of Neptune & Tomas, Los Angeles, and will be in charge of the architectural design and production departments.

A graduate of Syracuse University, Helm served during World War II as an architect in the Army at Oak Ridge, Tenn., atomic project. He has conducted his own office during the past seven years.

### L.A. ARCHITECT GETS SAN SALVADOR WORK

Architect Raymond R. Shaw, A.I.A., of 649 South Olive Street, Los Angeles, has been commissioned by the Board of Directors of the Banco Hipotecario de El Salvador, San Salvador, to design new banking facilities for the firm in San Salvador, following acquisition of additional land.

Preliminary steel fabrication plans have been prepared and the site is now under preparation for immediate installation, including foundations and site work.


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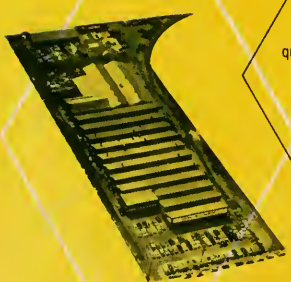

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